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The **essential** magazine for Amiga enthusiasts

AMIGA SHOPPER

Issue 66 September 1996 £4.50 US $9.95 ● Hfl 19.95

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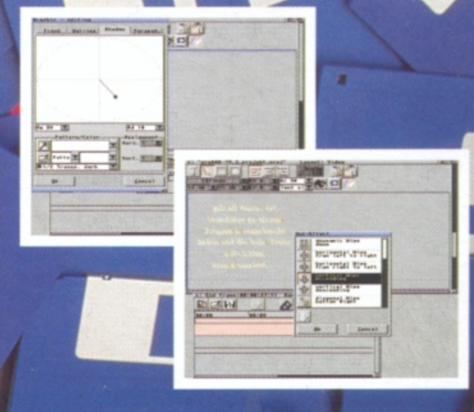
GVP68060
All accelerators are not the same – read our review and find out why



QUARTERDECK
Full details on page 8

Monument Designer

This exceptional titling package has finally been translated into English. Find out what makes it Germany's best kept secret.



Inside this issue

- Software for free – we take a look at the vast amount of quality software available for free, or at least for a modest Shareware fee.
- GVP 68060 reviewed. The in depth review you need to read before you spend your money.
- Monument Designer – one of ProDAD's most important titles, and it's never been seen before!
- DAT drives – are they yesterday's technology or a useful addition to your storage arsenal.
- ImageFX 2.5 – latest version of the increasingly popular image manipulator on test inside.
- HiSoft Basic: We continue our hugely popular tutorial on a much underrated programming language.
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AMIGA SHOPPER

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Inside issue

VIScorp have once more emphasised their commitment to the Amiga and in the meantime we all soldier on.

Earlier this month VIScorp announced that they have set up an Architectural Design Group consisting of a small number of Amiga experts. These experts are going to oversee development to ensure that all the enhancements necessary for the long term success of the Amiga are addressed. These advancements will be used not only for VIScorp's set-top boxes but also for Amiga desktops. Does this mean that we won't be seeing a PowerPC Amiga? That remains to be seen as does whether the Amiga will be licensed to third parties for other developments.



While all this goes on, we must sit on the sidelines and hope that the advances come quickly enough to save the Amiga and to re-establish its following. With the uncertainty still evident, we are aware that lots of people don't want to shell out for more software if they are not sure about their machine having a solid future. We believe that such users shouldn't be deprived from using their Amiga for serious purposes and we have taken this opportunity to round up all the very best free and nearly free software from the Public Domain and Shareware scene. Every area of software has been thoroughly researched and we will show you which products are suitable for your specific purposes so that you can do anything from write a novel to create a morphing animation!

In the rest of the issue, we've got all the usual tutorials, Amiga Answers has got all the solutions to your problems and we've got all the reviews of the new PD. You've got some of the best PD available on the Coverdisk which is jam packed with goodies. There's a stock market monitor, a print enhancement package and a structured drawing tool – turn to the Coverdisk pages for more information.

Reviews are not thin on the ground either; there's a special report on the state of the storage market with the arrival of a new DAT drive. Image FX 2.6 has been released and we look at what new features it offers. On the hardware front, A4000 owners can marvel at the power of the 4060 board which can upgrade what was once the top of the line machine. There's also a new video titling package, a new word processor and a new version of Clarissa. And to round it all off, we've got the best new releases in the CD market for you too. Let's get stuck in!

David Taylor
Deputy Editor

Turn the page for the contents of issue **66**

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EDITORIAL: Send all press releases, feature submissions and ideas to Nick Veitch or Andrea Ball.
E-mail: aball@futurenet.co.uk

COVERDISKS: If you have a contribution, commercial or otherwise, that you would like to submit for consideration for the Coverdisks, send it to Nick Veitch.

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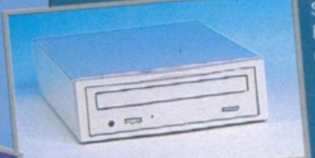
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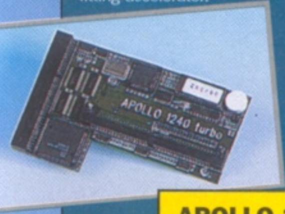


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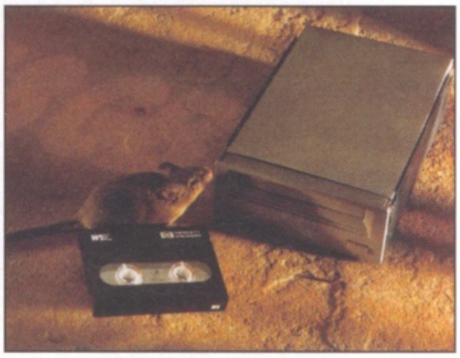
From the M62 Junction 17 head towards Bury. We are 50 yards on the right hand side after the third set of lights. The door to our premises is next to the florists opposite the Masons Pub.

All prices include VAT. Postage and packing will be charged at £3.50 per order (U.K.), £7.50 Europe and £12.50 rest of the world.

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AMIGA SHOPPER

ShopperFeatures



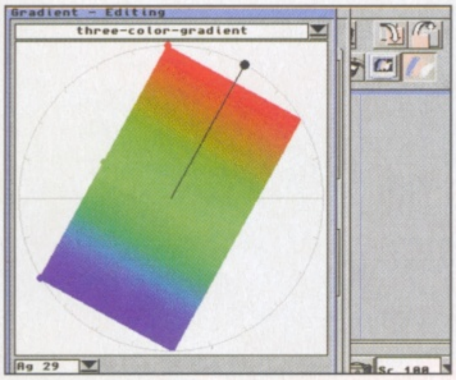
Dat Drive: It's not commonly used but there are certainly plenty of advantages.

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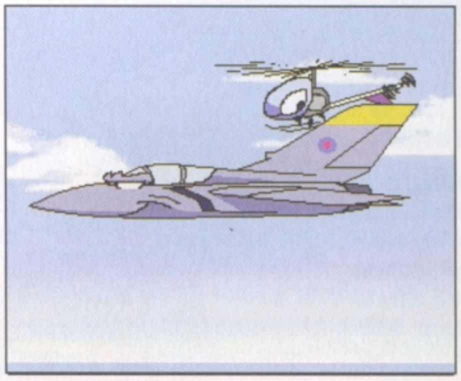
ShopperServices



Monument Designer: This excellent video titling package has just crossed the Channel.



CanDo Tutorial: The multimedia database – John Kennedy is the expert and it's time for part three.



Public Domain: There's a huge selection of programs reviewed in this month's PD.

The Public Domain

*The Amiga is blessed with an extensive range of Shareware and PD programs. You may not be able to buy so many programs in the shops but **Dave Taylor** has all the information that you need on how to get your software for free.*

Page **15**

Shopper**Disk**

Four disks packed onto a single floppy.





Cover disk

David Taylor *introduces this month's action-packed Coverdisk, which is full to the brim with all the very best new PD and Shareware to give your Amiga new dimensions.*

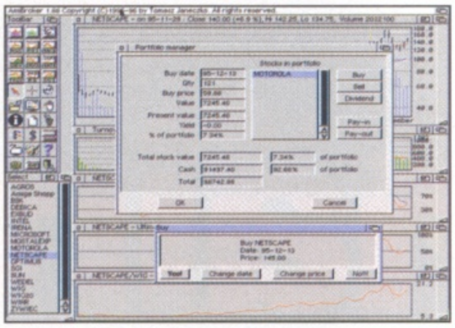
As you can see from this month's feature, the Amiga still has a wealth of excellent software available and being developed for it, but mostly coming from the PD scene. In fact, there are areas of interest covered by PD software that some commercial software can't even do. This month's disk is a case in point; just take a look at the brilliant software we've collected for you.

Application**Zone**

AmiBroker 1.8

Author: Tomasz Janeczko

This program is designed for analysing stock trends and for portfolio management. It is a remarkably powerful program which you can use to keep track not only of any single sets of shares, but of your own portfolios too. The program can be updated with data manually or even from teletext. The interface is very easy to use, although the more complex areas only make sense to those who know about the stock market or who have read the program's documents. Should you not have any money to invest, then you can try speculating using the data that is held within the program.



Keep a sharp eye on stock trends and portfolio management with AmiBroker 1.8.

To set up a portfolio, select the Account Manager from the Portfolio menu, or click on the Coins icon in the toolbar. The Portfolio Requester then appears and you have to click on the Pay In button to set up a starting balance. This is the amount of money you have to invest. Then click the mouse anywhere in the main window to select the date of the transaction you want to make. The exact date is shown in the title bar of that window. Now select the name of the stock you wish to purchase. Click on Buy within the Manager Requester and you are asked whether the date and price are right. If they are, click OK and you are asked how many shares you want to buy – the maximum you can afford is shown. Enter the number and your portfolio is started. You can spread your portfolio over a selection of shares and each selection will have its data shown, including how much you paid for them, what

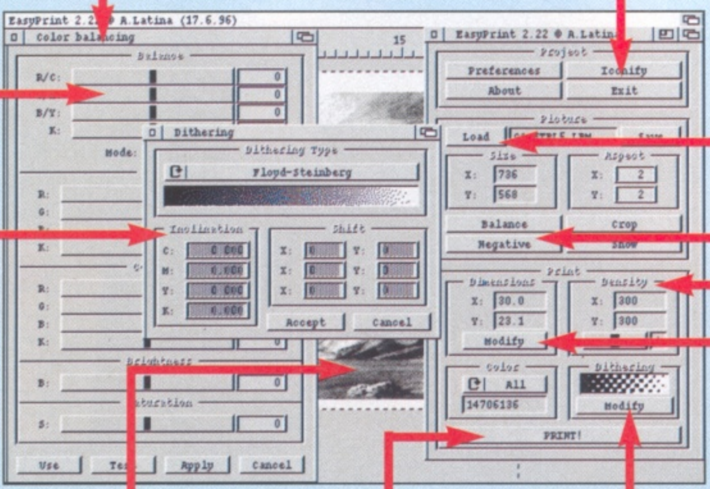
High-quality printouts with EasyPrint 2.22

The colour balancing requester allows you to make changes to the image before printing so that it improves your printer's output. Any changes you make can be tested on the image before being accepted.

The main window is used to open all the other requesters that control the program.

The colour balancing window is opened here so you can tweak the image.

Select the image you want to load here. It is displayed in preview form on the screen below.



Select the type of dithering used to ensure that the image maintains the highest quality possible, even when you're printing in black and white.

Using this button you can invert the colours of the image.

The denser a printout is the more dots per inch printed.

This allows you to change the size of the image on the page. Most images are not loaded at full screen, so you may want to increase the size.

Take a look at the picture in original colours to get a better idea of what you are trying to print.

The most important button of all! Clicking here sets everything in motion.

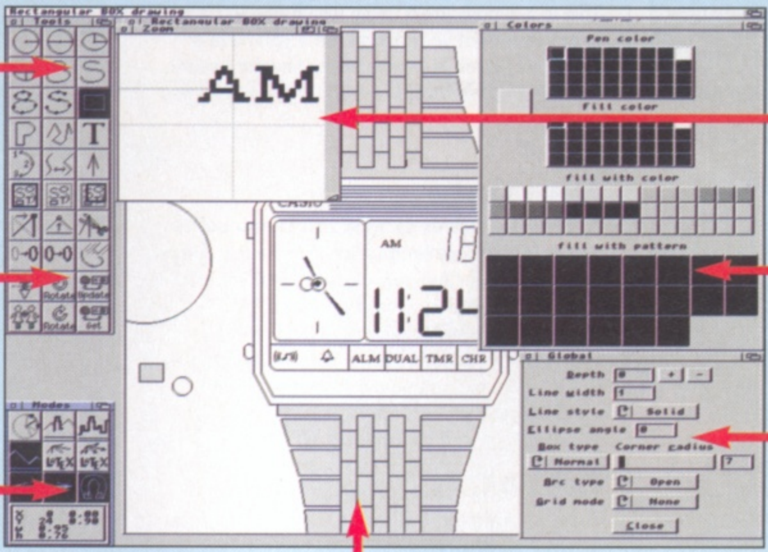
Here you can even choose a type of dithering for the style of 'error correction'.

Structuring made easy with AmiFIG 2.1

The tools for creating different types of objects are found in the top half of the column.

The lower part contains the controls you need for editing, deleting and copying objects.

This controls all the different modes and also gives you details of the cursor's coordinates.

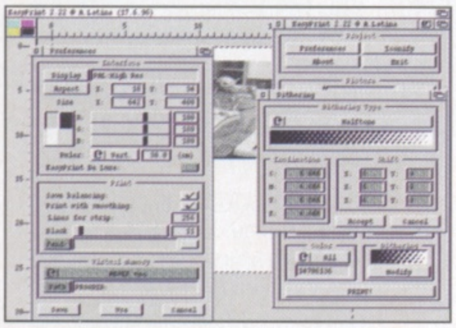


This re-sizable window gives you a close-up view of the area around the cursor for detailed work.

Although this is done in greyscale, you can always choose the pen colour and fill colour in this palette control.

You can set the style and thickness of lines and boxes here.

This is where you draw the actual figure or diagram. Some examples are available in the Examples drawer.



EasyPrint has all kinds of options for improving the quality of your printouts.

they are worth and what percentage they make up out of your portfolio. Selling shares is done in exactly the same way, using the Sell option from the Portfolio Manager.

EasyPrint 2.22

Author: Andrea Latina

The Amiga hasn't seen the official development of the printing drivers everybody wanted, so instead a number of third-party solutions have been created. This one is a dream to use. It requires an A1200 with WB3, but claims to be able to output a full colour picture to 24-bit precision at full A4 size on an unexpanded system. Before using the program you need to install it. This is done through the standard Commodore installer, but does make sure that you have the correct libraries and fonts installed. If you don't have the fonts installed, the program simply hangs.

When the program has loaded, you can see the interface. Load an IFF picture on to the blank page. You can now make some adjustments to the picture so that you get the best out of your printer. For instance, if your printer doesn't distinguish well between colours, you can adjust the contrast between them. Of course, if you only have a black and white printer, then you can make sure you get the best greyscale image possible. To do this, click on the Balance button and play around with the sliders. Then click on Test to see how this would affect the image. If you are happy with it, you can apply the change and continue to refine the image. When it's all ready, click on OK.

Before printing you can make other changes too. Clicking on Modify Dimensions allows you to change the size or aspect of the image on the page. The density of the dots per inch can be changed for the printout to get more detailed images. There is also a Dithering Requester which allows you to change the way the program tries to make corrections to the image for a better hard copy. Floyd-Steinberg is a very good system.

AmiFIG 2.1

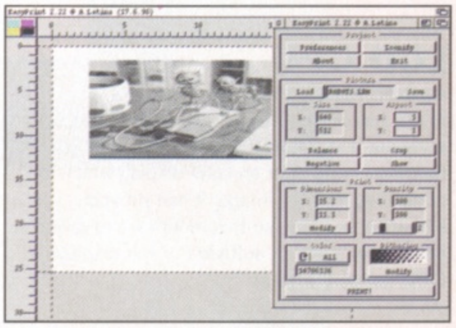
Author: Andreas Schmidt

Structured drawing tools are programs that make it easy for you to design your own structures. They can be used to create a variety of different projects, from designs of rooms to drawings of objects and diagrams of a scientific nature. AmiFIG can do all of this and save out your files as projects or IFF pictures.

When the program has loaded, you can see the Tools window and the Modes window as well as the main window in which you draw the objects. The Tools window decides which method to use for creating the diagrams. The top two lines have controls for circles or ellipses and curved lines. Click on the centre of the object for the circles, and then extend the box out as far as needed and click again. The freehand curved objects are created by clicking with the left button for individual points and then the right button for the final point, which connects to the starting point and completes the object. The rectangular icon is for drawing squares and rectangles.

The fourth line has controls for freehand creation of objects through straight lines and text insertion (the font can be changed from the Edit menu). The other main creation tool is the arc on the fifth line. The rest of the Tools window gives you controls for editing, copying, rotating and flipping objects.

There are lots of other windows available if you want to do more detailed pictures and use different modes.



You can use EasyPrint to change the colour contrast or even the aspect of your image.

Technical**Zone**

BlizzMagic 2.5

Author: Jan Hlavaty

The Blizzard boards have been amazingly successful and here is a utility for copying a new ROM into the RAM instead of the one native to your Amiga. It can survive any re-boots as does the normal ROM remapping.

HappyEnv

Author: Martin Gierlich

Because of the amount of preference files stored in the Env directory in RAM, you can lose quite a lot of memory. This package provides you with a handler for the Env device. It gives you access to the Env variables much faster and also takes up considerably less memory. Because of the way this new concept works you

Disk contributions

This month's disks were compiled using files from Aminet and from Walton's Mountain BBS (☎ 0181 891 5730), and with the help of the authors of the programs.

If you would like to contribute to a future disk, whether you have a full application, utility, 40K demo, clipart, font, 3D object, or even a module, send it to:

David Taylor,
Amiga Shopper Coverdisk Contributions,
30 Monmouth Street, Bath, Avon BA1 2BW.

Please only send the minimum distribution archive. Also, please do not powerpack (or similar) any files because it detracts from the archiving.

can do a "Delete ram:#? All" without removing any of the Env files, thus clearing RAM quickly and easily. Every time an Env variable is accessed and cannot be found in Env:, it is automatically copied from Envarc:, which means the entire copying of the directory which is done in the startup sequence can be omitted, making booting even faster. To avoid excessive disk accesses, HappyEnv remembers files that are not in Envarc:.

LCD CPU

Author: Matthias Betke

In the July issue, (AS64), we gave you the software and details for creating a do-it-yourself hardware project of an LCD display which is controlled by your Amiga. It has proved extremely popular, so this month we're giving you a new piece of software which displays a CPU usage bargraph.

AmiCDFS 2.21

Author: Martin Berndt

This is a further update of the new CD filesystem that we included on our disk a few months ago. Although we don't normally include different versions so close together, this update includes 10% faster accessing, masses of bug fixes, improved diskchange, the ability to work with HFS floppy disks and hard drive partitions, and much more besides. As such, this is an absolutely essential package for everyone with a CD drive because it gives you the best compatibility possible.

MigLog

Author: Unknown

This is a simple Arexx utility which can log any users who boot your Amiga, so if you have a computer which is accessed by several people, you can find out exactly when your machine has been used.

NewDate

Author: Neil Tweedy of Micro Dimensions

This is a CLI command which adjusts the usage of dates in your Amiga's clock so that you can have it displayed in whichever format you choose – DD/MM/YY, YY/MM/DD or MM/DD/YY – depending on which country you live in and which particular format you are accustomed to.

DSTAC

Author: Andrea Vallinotto

This small but useful command can be used to ensure that your Amiga changes the hour on your battery backed-up clock automatically when the clocks change, according to the date you set for it.

Creative**Zone**

This month's Zone includes two sets of macros for Final Writer which allow you to do all kinds of different things, such as creating letterheads or using Final Writer as a Print Engine from other programs through Arexx. Final Writer users shouldn't be without these collections, especially because there is another utility included for loading images into your documents using datatypes. WordWorth users shouldn't feel left out either because there's an Arexx script included which loads all your fonts into a single text document so that you can do a printout for reference use.

That's all for this month, and I think you'll agree that there's something on the disk for everyone, from applications to excellent utilities. There's no Information Zone this month because there were no updates sent in, and there wasn't room to include the same files from last month. ■

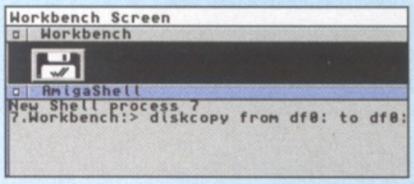
Beginners, look!



Before using this month's Coverdisk, please be sure to back it up – just in case. Simply follow the easy instructions below.



1 ***Boot up from your Workbench disk or partition, double-click on your Shell icon – to be found in your System Drawer.***



2 ***If you only have one disk drive, type in the following line and then press Return.***

```
Diskcopy from DF0: to DF0:
```

If you have two drives, place the Coverdisk in DF0: and a blank in DF1:, then type in this line instead:

```
Diskcopy from DF0: to DF1:
```

3 ***Follow the on-screen prompts and remember that the Coverdisk is the source disk and the blank is the destination.***

4 ***If you used the two-drive method, remember to rename the copy by clicking on its icon and pressing right-Amiga r.***

5 ***If you have two drives, you can also copy the disk from Workbench by dragging the Coverdisk icon over the destination disk's.***

6 ***Then place either of the Coverdisks in DF0: and reset the Amiga to boot it. It is best to boot disk 1 (or the Subs disk if you're a subscriber). This will let you install all the disks to either floppy or hard drive.***

Dodgy disk?

To avoid errors when installing to floppies, ensure that your destination disks are of high quality. If an error occurs, try re-booting and using a different spare disk – the majority of errors are caused by faulty destination disks.

If your Coverdisk absolutely refuses to work and you are certain it is faulty, please return it, along with an S.A.E., to the address below. Please do not send faulty disks to the Amiga Shopper offices.

Amiga Shopper Coverdisk
(insert the name of the disk),
TIB plc, TIB House,
11 Edward Street,
Bradford
BD4 7BH.

Subscribers' disk

Every month subscribers get another disk packed with programs absolutely free. The disk is exclusive to subscribers and this month includes four amazing packages. There is Everyday Organiser, which is a suite of programs that sets up a diary on your Amiga and which can also launch programs on specified dates. Then there's Font Machine, which is an excellent package for creating textured fonts. DeepX is a new version of the on-the-fly disk expander and CityScape is a collection of objects and textures for Lightwave that allows you to create a full city scene. For details on subscriptions, and how you can save money on every issue of Amiga Shopper as well as take advantage of exclusive subscriber offers, call the hotline number below. You won't regret it.



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News

VIScorp finalise deal with Escom



VIScorp bit the bullet and finalised the agreement to buy Amiga Technologies from Escom for $40m in cash and stocks on June 24th. Escom has been in financial trouble since late last year. The deal will include all of Amiga Technologies' staff and property, including existing stock, parts and technological expertise. The only thing not included in the deal was the Commodore name and trademarks which Escom are still using to push their higher end PC clones.

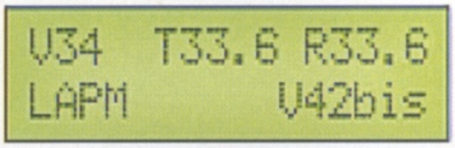
For the time being, VIScorp intend to continue to use Bensheim as the base for the co-ordination of production and distribution for the Amiga.

Philips rescue Leisuresoft

According to industry newspaper CTW, electronics giant Philips announced that they had acquired failing distributor Leisuresoft in the last week of June. The move comes as no surprise to industry pundits who had predicted the buyout after Philips bought up Bomico in Germany earlier this year after having acquired Ecudis in France last year. Leisuresoft called in the administrators this March and has been busy selling off parts like the TechnoPlus accessories range to its SDL parent company Anglo Corporation, but trade debts in excess of £3m are nevertheless expected to remain.

Supra launches 33,600 modem

Supra recently upped the potential transfer rate on their premium modem - the SupraSonic, to 33,600 baud. Owners of existing 28.8 SupraSonics can upgrade by using the flashrom upgraders available from ftp.supra.com. The SupraSonic modem improves on Supra's previous flagship product the Supra v.34 Fax modem by increasing the information area from a two character display to a 32 character LCD readout. This lets all pertinent information be displayed on the programmable screen rather than switching between as before. The modem is also capable of displaying CallerID information (where available) on this display and of acting as an answerphone and voicemail system, providing of course, that software is created to do such a thing on the Amiga.



Hayes drops prices

Modem manufacturer Hayes has announced that it is to drop the price on its range of modems. Jeremy Butt, general manager for Europe said: "Hayes products are reknowned for their high quality and reliability. However, there has been a perception in the market that our products are highly priced, which has not been justified recently. We have now cut the prices to such a level that no-one will be able to resist a Hayes product."

Price cuts of 28% on the Hayes Accura 288 v.34 and Fax modem, perhaps the modem most likely to interest Amiga users, bring it down to £169 including VAT. Hayes' modems are likely to appear more favourable to budget-conscious users.

EMC 4 USA OK?

Following last month's popular acronymic headline, we proudly announce the fact that EMComputergraphic has told us that it has appointed a US distributor for its unbeaten range of desktop publishing and video CDs, the Phase collection. Its appointed distributor, Computer Safari, will be no stranger to fans of EMC's commercial typefaces as it is the creator of the successful StarFonts collection of Star Trek-inspired typefaces.

To further celebrate their new collaboration, EMC and Safari have a joint web site at: http://www.woodland.net/emc/

EMC SAFARI

Encyclopaedic knowledge comes to the Amiga at last

Promising an easy-to-use and colourful interface, the Epic Interactive Encyclopedia should be worth the wait.

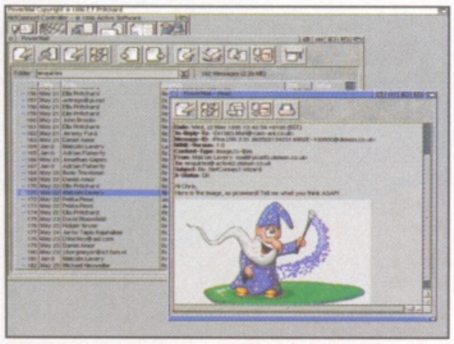


Epic Marketing, the company well-known originally for their PD and shareware collection, and now for their range of CD-ROM titles, have announced the release of an interactive encyclopaedia on CD-ROM retailing at just £29.99. Wholly produced in the UK, unlike most multimedia encyclopaedias, the Epic Interactive Encyclopaedia (EIE) comes in two versions, one for AGA-based machines and one for ECS owners. The EIE comes with a hotlist editor allowing you to set up lists of your favourite topics and, like any multimedia encyclopaedia worth its salt, it also has hundreds of images and sound samples to accompany the text describing each topic. The EIE should be available from the end of July. If you would like more information, contact Epic Marketing on 01793 490988.

Active Software launches NetConnect

In a bid to bring easy-to-use internet to Amiga owners, HiSoft were the first to put Net&Web on the market. Now, however, Active Software are leaping into the fray with their NetConnect package, available on disk or CD-ROM. With an extremely user-friendly configuration GUI sitting on top of the Amiga industry-standard AmiTCP v4.3 and a collection of MUI-based internet tools like PowerMail (version 2 of Metatool), MFTP2, MNews (a powerful newsreader only at version 0.2 on Aminet) and a specially created version of AmiPPP, amongst others, things look pretty favourable for Active's package. The configuration GUI allows for drag and drop configuration of a personalised toolbar for all your important internet utilities and the package will cater for over one hundred ISPs

Everything is there to make TCP/IP on the Amiga into an easy 'anyone-could-do-it' type of operation rather than the arcane mess it was until recently. Watch out for our review soon, but if you want more details now, then call Active software on 01325 352260 or email them at: sales@active2.demon.co.uk.



A sneak preview of PowerMail – MetaTool 2, included in the NetConnect package.

ICPUG trial membership for just £10

That bastion of freely distributable software and advice the Independent Computer Products Users Group (ICPUG) is offering a Trial Membership for the four months from 1st September to 31st December 1996 at the special cut price subscription of only £10.00 (including £1 share) for UK and BFPO members. The rate for Europe (including Eire) and overseas surface mail is £12.00 and the overseas airmail rate for this special offer is £15.50.

ICPUG, a non-profit-making organisation, was formed in August 1978. The focus of its support is on PCs and the Amiga, but it aims to provide support for most home computers, including the Apple Mac as well as the older machines which were produced by the former Commodore company.

Trial Membership includes two issues of the ICPUG Journal (around 104 pages), use of the ICPUG free PD software library for the Amiga and all other Commodore computers, as well as a free PD library (DOS and Windows) for the PC Discounts. Technical help hot-lines are also available for members.

Through the Readers Write section of the ICPUG Journal, members can contact other users of home computers, both within the UK and overseas.

With the demise of Commodore and the acquisition of Amiga Technologies by VIScorp, the "For Sale and Wanted" column is often the only means of acquiring itemsessential to your belovedmachine which are now out of production.

You can get details from the Membership Secretary, Tim Arnot, 17 Colne Drive, Oakfields, Didcot, Oxon OX11 7RZ, through email at: digits@cix.compulink.co.uk, or via the web at: http://www.icpug.org.uk

Not big enough?

Tired of having too small a monitor? People pointing and laughing? Well, now you too can have a monitor that will make the girls (or boys) gasp. ViewSonic's brand new PT810 monitor measures in at a massive 21". The monitor uses a .30mm aperture grille that produces vertical bars of colour instead of dots, resulting in bright high contrast images even at high resolutions. Furthermore, its SuperContrast screen incorporates glass with a lower transmission rate to minimise colour wash-out.

The PT810 offers twenty controls for sizing, positioning and convergence and the ViewMatch system allows you to adjust colour temperature to match printed output. It can display resolutions of 1600x1200 at 73Hz and 1280x1024 at 85Hz and will set you back a mere £1903 including VAT. For more details, phone ViewSonic Europe on 01293 643900.

Escom in trouble

Escom's troubles don't look like abating. The PC giant and ex–owner of the Amiga announced at the start of July that it was being forced to close 65 shops and lose over 200 staff in an effort to keep its head above water.

Escom put a brave face on the cuts saying that they firmly intended to continue trading in the UK, but talks with banks and trading partners have failed to stabilise the troubled German company.

Titbits

Wirenet doubles web space

Wirenet Amiga Internet now offers 1MB of free web space to all their subscribers. The UK's first Amiga-only Internet Access Provider has just doubled the amount of WWW space for each customer's home page from 512K to 1 Megabyte.

Through their backbone provider U-Net, who are once again Number 1 in Internet Magazine's league table, all customers will now have a full megabyte of space for storing their personal web pages. This space is to be made available immediately to all new and existing customers.

Wirenet was set up to provide a complete internet solution for the Amiga. They supply up--to-date and fully supported software for their users, complete with a comprehensive installation and configuration package.

The supplied software includes an integrated news and mail package, an intuition controlled ftp program for downloading software and other files, and a World Wide Web browser. These are all controlled from a central control window that also takes care of connecting and disconnecting from the internet.

Benefits of connecting via Wirenet include:

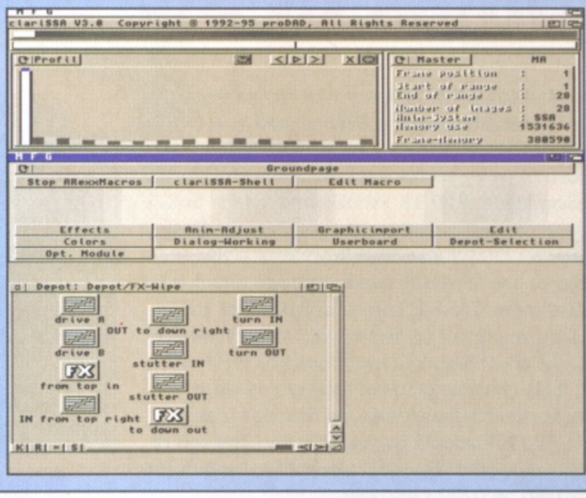
- Amiga specialised support by telephone and email
- Full email address with own domain name
- Local call access throughout the UK
- 20:1 modem ratio that means you should always be able to connect
- 28.8K modems for the fastest connections
- Your own personal page on the World Wide Web with 1MB of space
- A full range of shell programs and scripts allowing users who prefer to work from the shell to do so
- Full and totally uncensored news feed

Their rates are as follows:
1 time connection fee – £14
Annual subscription – £115

These are inclusive prices to which VAT is already added.

ClariSSA Pro

ClariSSA Pro is launched this month for just £195 inc VAT and is available from White Knight Technology. The new version features improved SSA animation giving even faster playback of movement-rich anims and a whole new host of special effects that can be incorporated into your masterpiece using a unique and easy to use timeline interface. We will have a full review of this outstanding package in next month's feature packed issue. For more details contact White Knight Technology on 01920 822321 or email them at: 106010.2617@compuserve.com



ClariSSA Pro's new effects are easy to use and help create professional-looking animations

Comment

Amiga OS: Village Dimension Competing in a Metropolitan World?

We all know 'village life' is better than 'city life', don't we? There is a sense of community, everyone can deal with daily problems and when there is more serious work, it can be done by a one-man organization. You feel you are in control; even operating systems fit onto a few DD floppy disks.

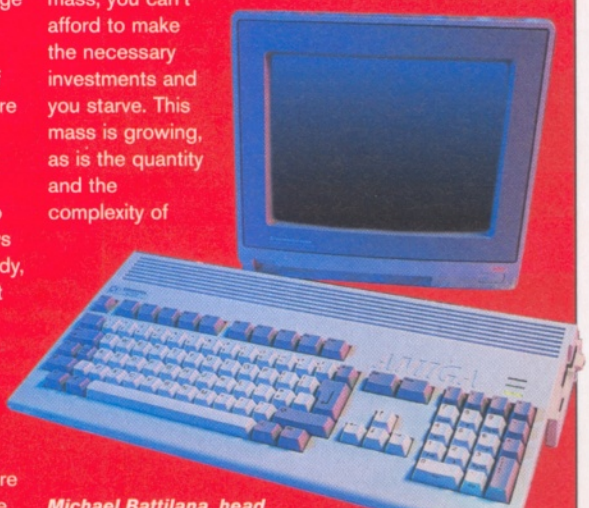
In cities, life is more complex. There is no overview so you can get lost. Everything is so vast that operating systems fill one or more CD-ROMs. That's the way it has to be; hundreds of millions of people "plug and play" thousands of different printers, graphic cards, sound boards, networks, modems, mice, CD-ROMs, DVDs, MIDI, MPEG, ISDN, video–conferencing systems, speech recognition, 3D audio, disability features and legacy software...

Then there is the Internet. Not long ago, this was a village but now it is the wildest of all cities. Microsoft and Netscape fire HTML extensions at each other, blood flows as the load gets too heavy; Java Virtual Machine, JavaScript, Active X, RealAudio, ActiveMovie, Quicktime, Acrobat, Type 1 Fonts, TIFF extensions, PNG, VRML, SET, JIT compilers, higher screen resolutions, frames, style sheets, telephony, digital signatures, encryption, secure sockets and protocols, merchant servers, home servers...

The Amiga community has prospered as a village but is now facing hard times. Its buildings are getting old, and most of the people who took care of them left years ago. The birthrate has fallen; there are no more PET and C64 generations to help. The remaining boys and girls grow, play, study, gain experience and get strong, but soon leave. Most of the best go downtown, where the rich village developers are investing. Those who keep loving village life are considering a new place where bees fly in pairs. The consumer market was one of the last to be invaded, but now metropolitan OSes and metropolitan Web browsers (almost an OS themselves) are here, fighting for life in our dusty village streets.

Outside, critical mass is an issue; OS/2 and the Macintosh, much more "metropolitan" than the Amiga, have a larger, wealthier market share but even their tales are of corporate headaches and disadvantaged users. If you don't reach critical mass, you can't afford to make the necessary investments and you starve. This mass is growing, as is the quantity and the complexity of systems, while universal component technology isn't mature enough to reestablish a balance where "small is good".

While the new set-top box perspectives provide some reassuring protection for Amiga technology, there is no doubt that the next few years will bring some exciting challenges for the software developers who are left in the village...



Michael Battilana, head honcho at Cloanto and creator of Personal Paint speaks out about the future of the Amiga.

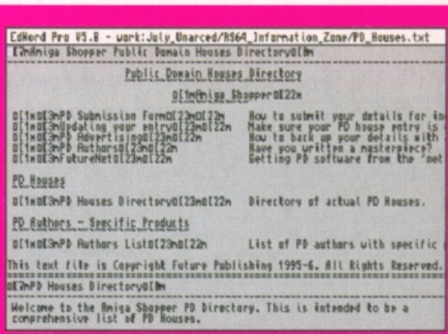
Software for Free!

David Taylor *brings you the ultimate guide to Amiga PD and the very best it has to offer. Now you don't need to spend a fortune to get the best quality software.*

Public Domain, or PD, has become a term used to cover a whole range of non-commercial software. While a lot of it is very minority orientated, written by programmers for their own specific needs, there exist many packages that should be considered essential for Amiga owners. It's time to looked at every type of software available and the best packages around. Whether you need a word processor or a music package, a morphing program or a database, the chances are that you'll find one for free – or nearly free – in the PD.



AudioLab Junior is a flexible sound sample editor that can help you make the best of your samples.



The favourite choice for shareware text editor, EdWord Pro, is stable and powerful with ARexx support.

Which ware?

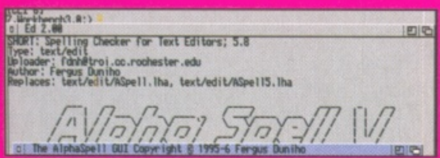
Whenever you get a package from the PD, you should check the documentation to see what type of 'ware' it is. First is the materials which is completely free from copyright restrictions – labelled 'public domain'. Anything that is truly PD is completely open to use or alteration by anybody. However, because some authors don't want their programs to be disassembled, hacked or incorporated into other packages without their permission, a sector known as freeware has been created. Like PD, this software is completely free, but the author retains copyright, so that nobody is allowed to pass work off as their own, or do anything with it outside that which the author stipulates.

Normally, the author retains the copyright so that they know their product is kept freely available and that nobody is trying to sell it, except for a nominal fee to cover distribution costs.

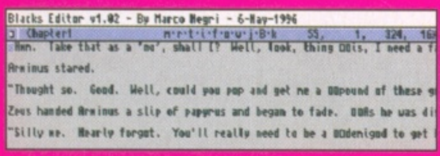
The most popular type of ware is 'shareware'. This is a product created by the author, that they believe they should be rewarded for. In other words, they want some form of payment for the time and effort they have put into the creation of the package. To this end, they request that you register the package by sending them a certain fee, normally between £3 and £20. To encourage you to register, a lot of authors cripple their product in some way, agreeing to send you the full product when you register. As such the shareware versions are often merely demos. Sometimes the registration process will provide you with a key file, which when placed in a specific directory will be recognised by the program and unlock it, making all the features accessible. Shareware authors do not tend to make that much money, however, as only a few people register programs. If the fee is high, then the program has to be exceptional to get people to fork out. That said, some programs can be runaway successes, like ShapeShifter, the Apple Mac emulator, or the Epoch series of programs.

There are also many other types of ware, from 'e-mail' or 'postcardware' to 'cookie' or 'beetware'. Frequently these are packages where the author still wants people to register, so they can hear how many people are using the program, as well as finding out their opinion of it. To do this, they request that people register, but don't ask for money, simply a message or maybe a gift. These wares may or may not be restricted in some way.

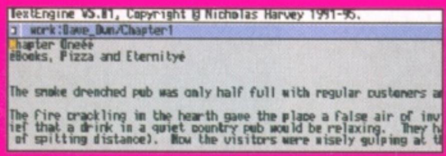
Lastly is a separate type of software called 'licenceware'. In this type of project,one distributor takes on a set of titles they consider to be of high quality, but which are not commercially available. The product is sold through retailers and a percentage of the proceeds from each sale goes to the author. When you buy a licenceware product, you have no further fee to pay and no registration, so



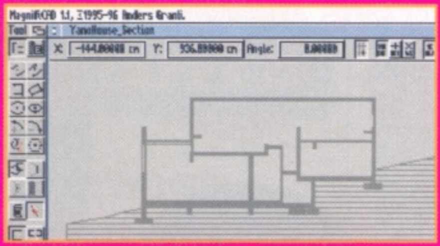
ASpell is the ideal companion for text editors as it can spell check documents and there are also several different language dictionaries available for it.



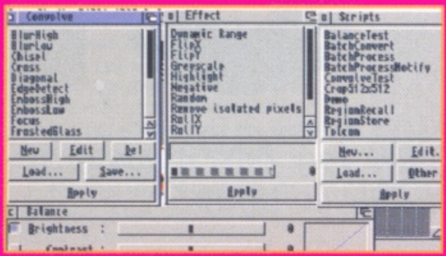
Text Engine is a good, solid text editor, but didn't prove 100% stable when we tried to exit the program.



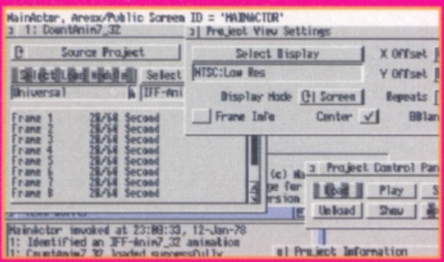
Although still quite new, Blacks Editor is very powerful word processor and could prove popular.



Structured drawing the easy way with the eminently accessible MagnifiCAD.



Believe it or not, this is a graphics package; there are just so many windows to deal with that the image is hidden!



MainActor was such a good package that later versions went commercial.

such programs often work out cheaper than most shareware, even though they might be of higher quality. This is a form of amateur commercial software.

Ware-abouts

There are several sources of PD, the most obvious being the famous Aminet library. This is the largest single source of software and it's maintained on the Internet. Its home is at ftp.wustl.edu, but there are mirror sites around the world. These mirror sites contain replicas of the main site, so that you can access the software from a site nearer to your home country. In the UK, the Aminet mirror is maintained at src.doc.ic.ac.uk and new files are uploaded every day, so that you'll always find something different available from the site on every visit. New files are uploaded by the authors themselves and checked by the Aminet administrators to ensure they are not illegal. Because not everyone has access to the Internet, the Aminet library has also been released on a set of CD-ROMs, which have proved immensely popular.

The other famous collection of disks is called the Fred Fish Collection. This has become less active recently, but still has a massive back catalogue of Amiga software. Much of the software from Fred Fish can be found on Aminet too, although it must be remembered that Aminet is not an exhaustive source, and not all software ends up there.

If you have a modem, but no Internet account, then you can get software from local BBSs, many of which contain new files from Aminet, as well as some extras. If you don't have access to any of these methods, then the best ways to get your PD are either from a PD house or from magazine coverdisks like our own. PD houses maintain huge libraries and will often compile disks with your requested programs, instead of just selling each program on a separate disk. Most of these libraries are set up with good intentions and charge only minimal amounts to cover costs, although some have been criticised for trying to make too much money out of other people's efforts.

Licenceware products are only available from authorised dealers. Anyone selling them who isn't a recognised dealer is infringing the author's copyright and pirating the goods, as the author will not be receiving their percentage.

The software

With the descriptions of PD defined and the whereabouts of the sources clarified, we can now look at the specific software available, so that you can make sure you get hold of the very best packages. There are bound to be those who disagree with our choices and claim that the software they use is better than the packages we pick, but we've chosen on the basis of all-round general use and features. Many of these programs have been included on earlier Coverdisks, but all of them are available from Aminet now, so we've also given you their locations. Some of the programs are newer than others; we've chosen the best we've seen – whatever their ages.

Word processors

Word processing is probably the single most common non-entertainment use for computers. Almost everybody needs a WP package at some point, but a commercial one will cost you quite a lot and can be overkill if you just want to type the odd letter. While there are no PD programs that can match the DTP features available in the likes of WordWorth or Final Writer, there are plenty that offer all the text editing features you'll normally need.

Three packages stand out and coming in third is Text Engine 5. This has a lot of features and can be very useful, but it's not 100% stable and has been known to hang when you exit the program. Still, it does enable you to do all the obvious things like Cut and Paste, and Find and Replace. Second place goes to Blacks Editor which is a new package that offers all the functions you'll need, including ARexx support. It's also completely freeware, and is not restricted in any way.

The most professional, stable package, though, is EdWord Professional. Now in version 5.5, which was recently included on a Coverdisk, EdWord has everything you'd want from a WP, including multiple documents, file insertion, block selection and Cut, Copy and Paste. The program also includes features such as line deletion, Find and Replace and Hex search (useful because this program is ideal for coders – it's even good for AmigaDOS scripts, as it allows for the insertion of escape codes). There are word count facilities, an occurrence count, a feature to transform tabs into spaces (for those files that are different types of ASCII) and a calculator module which will open the calculator on the text editor screen and which can also be used independently of the program.

It has ARexx support and enables you to record and save your own macros. The shareware version has the Save option disabled, although you can still use Save As to save a file, so that you can really test out the program. The registration is a mere £10 and it's certainly well worth it.

None of these programs include a spell checker but don't despair because there is a PD spell checking package called ASpell, which was included on last month's Coverdisk. There's also a separate GUI package and an extended UK dictionary available. The GUI was also included on last month's Coverdisk and the larger dictionary was on the Subs disk. Better still, you can control ASpell through ARexx so that it becomes part of the WP. Run from an external shell, the GUI pops up on your WP, shows you the incorrect words and offers alternatives.

Available on Aminet:
text/edit/

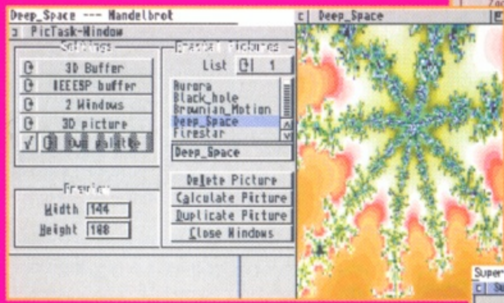
ASpell.lha
ASpellGUI.lha
BlacksEditor.lha
EdWord_V5.lha
TextEngine5.01.lha
ukacd.lha



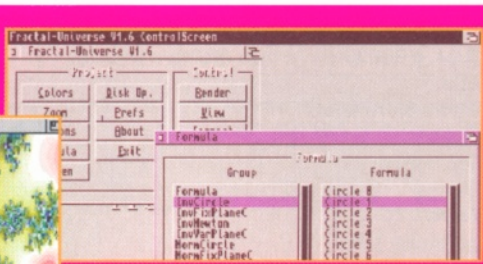
FreePaint is the only real choice if you want freehand graphics creation, but at least it's good!



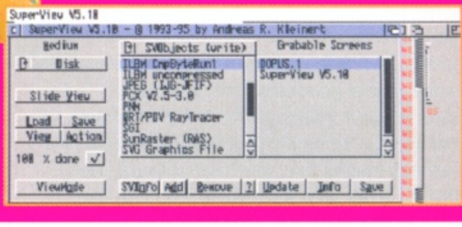
What can we say? You can create clouds for backdrops. Using Clouds, the fractal generator.



Fractal Universe is a great program, but should you really expect to pay for a fractal generator?



Chaos Pro is free and creates excellent fractals which include animations, but is system intensive.



If you want to be able to view your pictures then save them out in different formats, SuperView is ideal for your needs.

Business applications

If you run a small business or need to keep track of your own dealings, then the Amiga can help without taking all you profits to buy the software you need.

Most people have some use for a database which can store information in fields and which, ideally, can also incorporate some multimedia files too, in case you want to store pictures for instance. This is useful as it enables you to quickly pull up things like product shots or customer information should you need to.

There are really two choices. DB3.2 is a shareware program, which is un-crippled but costs £13 to register. It's easy to set up and has a user-definable interface so that you can design your own databases. However, another program is now available called Fiasco, a truly excellent program that could, in all honesty, put some commercial programs to shame. It handles datatypes and has an interface that enables you to design your own look for your projects. It is powerful, yet easy to use and can incorporate pictures and sounds, unlike some commercial programs which load them into separate windows. Amazingly, the author has released the program in its full version, but it's giftware, so send him a token of your gratitude.

If you have to create reports or even schoolwork, then graphs are a useful visual aid that can give a professional look to your work. Although there are a couple of choices, the one to go for is JCGraph, a program that takes a standard text file containing information of the axes and values and draws a 3D graph for you. You can preview your work in a wireframe mode and, if necessary, adjust the perspective. It's got quite a few graph types and is one freeware business application that should not be underestimated.

Available on Aminet:
biz/dbase/
db3.2.lha
Fiasco.lha

gfx/misc/
jcgraph.lzh

Paint programs

If you are looking for something which will allow you to draw your own pictures, then the choice is the PD FreePaint, which is quite old but still very competent, despite the fact that it only supports older screen modes. There are other packages, but none match the quality of FreePaint. It features all the tools, including lines, squares, text, bucket fills and brushes.

A slightly different choice is the licenceware, Magic Paint Box, a paint program designed for children. It's excellent, features some built in clipart rubber stamps and could easily be used to draw pictures, even though it is aimed at kids. It costs £7 from F1 Licenceware.

If, however, you are looking for something which can create diagrams for reports and the like, then one of the more structured drawing programs is your best bet. There are a couple of packages worth checking out. AmiFIG is very powerful and has all the features you could need. You can find it on this month's Coverdisk – check out the disk pages for more details. MagnifiCAD is a more approachable package, with a very friendly GUI, but it lacks some of AmiFIG's more advanced features. If you need a program like this, then check out both and decide which is best for you. Registration of AmiFIG is $20 (c.£13) and MagnifiCAD is £13. Both shareware versions are slightly restricted, but totally adequate for evaluation.

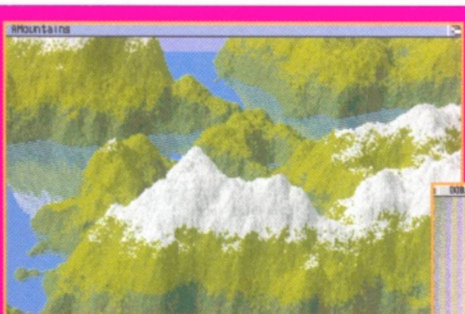
Available on Aminet:
gfx/edit/
FreePaint.lha
amifig21.lha
amifig21_68k.lha
MagnifiCAD11.lha

Image processors

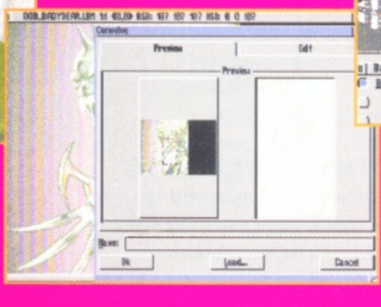
Image processors are not designed for drawing freehand pictures, but for adjusting existing images. You can use them to convert images between formats or add effects to the pictures and adjust the colour levels. There are currently two realistic packages available.

In an earlier incarnation, ImageStudio won the 1995 Reader Award for the best PD/shareware utility. It offers the chance to load many different file formats and enables you to add masses of effects and colour alterations to your images. This was already one of the best shareware programs ever and recently it moved up another notch, when a printed manual became available.

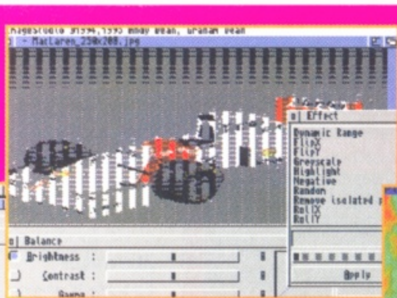
The other program worth considering is ImageEngineer 3. This has now become a shareware product although previously it was freeware. It has some exceptional features like previews of user-defined Convolves and also includes masses of pre-defined effects, so cannot be underestimated. The ImageStudio shareware version crops images to 512 x 512 pixels and the full version will cost you costs £15. It requires OS2.04, at least 1Mb of free RAM and a hard drive. The ImageEngineer 3 shareware version will handle 400 x 400 pixels



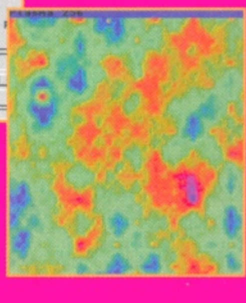
AMountains can create fractal landscapes that you can then import into paint programs, saving you work.



This new version of Image Engineer has the ability to preview Convolve additions, something that many commercial packages can't do.



Here's ImageStudio with only a couple of windows open and a preview image on display.



More surreal backdrops are available with the weird plasma effect.

and costs $35 (c.£22) to register. It requires OS2.04, a 68020 and a bare minimum of 2Mb of RAM.

Available on Aminet:

gfx/edit/

ImEngV3.0.lha

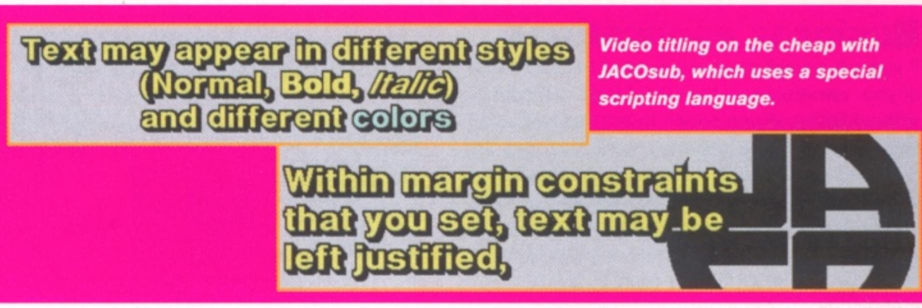
gfx/conv/

ImageStudio_1.lha

ImageStudio_2.lha

Fractal generators

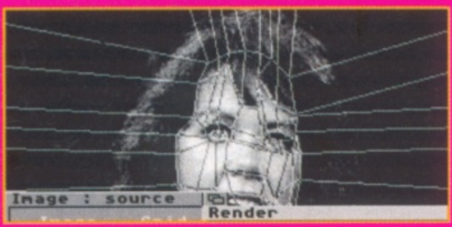
Some people dismiss fractal generators as frivolous packages, with no practical use – only capable of making those Mandelbrot images so popular in the '80s. Put these prejudices aside, because fractal generators can save you masses of work. Although the creation of any fractal can be extremely processor-intensive and sometimes means that you have to leave even an 060 to work on it for a while, you can use generators to create some useful pictures – especially landscapes, trees or clouds. You can then use these as backdrops in your own pictures and particularly 3D projects.



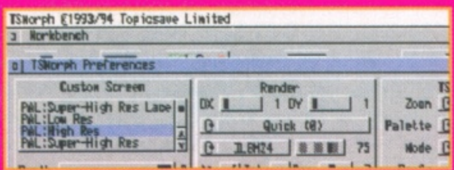
Video titling on the cheap with JACOsub, which uses a special scripting language.



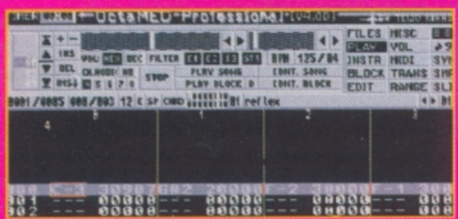
NTitler can create titles over IFF images and you can then animate the whole thing in 3D.



A low end morphing program based on a grid system, MiniMorph loads greyscale images and saves out IFF frames.



TSMorph has several programs, including the preferences, with ARexx support and makes use of preview images and 24-bit IFF final images.



OctaMED v4 has now been released as freeware and so you can now get your hands on the complete package.

AMountains is a simple fractal generator; all you need do is set it going and leave it. When it's finished, you've got a complete landscape! The package has a couple of versions for different CPUs and a faster CPU is recommended, although a 68000 FFP version is included – you should note, however,that OS3 is required. Because it continues to generate the landscape, scrolling it as it goes, you need to have a screen capture utility, like QuickGrab or CRSnap running in the background so that you can save the picture when you want.

Clouds can be created using the program Clouds which is also very simple, works on any Amiga, and can save out its wavery results as IFFs for your future use.

If you want to create a more wacky backdrop, then try out a plasma field, which can be created with the Plasma program. Like AMountains, you'll need to grab the screens to save them. All these packages are either public domain or freeware and therefore complete.

If you want to create a different type of fractal, or maybe one of the Mandelbrot types, then you can choose from quite a few programs. There are some which are designed to be quick and easy, where you just start them off and they create a fractal – something like Clouds, except for Mandelbrots. However, you might do better from one of the more professional packages like Fractal Universe or Chaos Pro. Both are top quality and enable you to choose both your type of fractal and the degree of magnification. In the end though, ChaosPro comes out best as it is public domain not shareware, and yet has advanced options like animation creation in both anim and IFF frame type.

You should note that although both programs create exceptional fractals, the time required is extensive, as is a reasonable system (030 with FPU). Using an 060 to create a 200 frame animation, I set it going and had to leave it while I went on holiday! (the animation was included on the Amiga Format Cover CD 1.)

Available on Aminet:

gfx/fract/

Amountains.lha

Plasma.lha

Landscape.lha

ChaosPro.lha

fu1_62.lha

gfx/misc/

Clouds30.lha

Morphing programs

As unbelievable as it may seem, you can get several PD packages that create morphing animations which will metamorphose one image into another. Okay, you aren't going to create T2 on your A500, but you can still do some amazing things. TSMorph is the best PD morphing package, although you should remember that morphing is not aimed at beginners. TSMorph is still remarkably easy to use, giving preview pictures that enable you to select the relevant points which will be morphed into one another from one image to the next. You can determine how many frames will be used and save out the animation in either 24-bit IFF or one of the number of other formats available. Included in the package is a tutorial which provides you with the two pictures to be animated. The package supports ARexx for some effects and some scripts are also supplied. If a criticism can be made at all of such a generous package, it is that the tutorial could have been supplied as a completed project, however, the instructions should suffice for beginners with a little patience.

If you do want to dive straight in and see what it is all about – get your hands dirty immediately as it were – then try out MiniMorph. This is a less complex package (not that TSMorph is that complicated), which simply loads greyscale images up and allows you to stretch grids over the top. The two grids are then used to morph the images over a requested number of frames. MiniMorph morphs individual frames in greyscale and comes with three sample images, which all have grids created for them. It's a freeware package and so if you're interested in this sort of image manipulation then you can happily get both this and TSMorph to play around with. Amazingly, MiniMorph will actually work on an OS3 machine, although any extra RAM you can get hold of is useful.

Available on Aminet:

gfx/edit/

TSMorph.lha

gfx/misc/

miniMorph.lha

Other Graphics

As well as all these types of graphics creation packages, you should consider a picture displaying program, because loading up a full graphics package every time you want a quick look at a picture is both time and memory consuming. For a long time Viewtek has been the program that everyone has used to show pictures, because of its versatility. However, it's decoding of JPEGs is not particularly fast or of very good quality, and so there's room for other programs on your drive.

Visage has proved a popular program, but if you want something that's fast and has quite a few options, then the two to look for are

SuperView and TIFFView. They can both load many types of images quickly, use different screen modes and save out the images as different formats. Equally, the quality of the images is excellent in both packages and both are suitable for OS2.04 and above. SuperView can be evaluated using the shareware version which has a reminder requester for 30DM (c.£12) and TIFFView is freeware.

There are a couple of other, miscellaneous packages also worth checking out. MainActor 1.5 is a sound and animation package that proved so popular it went on to become commercial, although this earlier version is still available. Iconian is a fully fledged paint package for creating icons and is amazing. If you need to print out graphics then you should take a look at the print enhancement package Easy Print 2, which is included on this month's Coverdisk, so check the disk pages for more details.

Available on Aminet:

gfx/edit/
MainActor1_55.lha

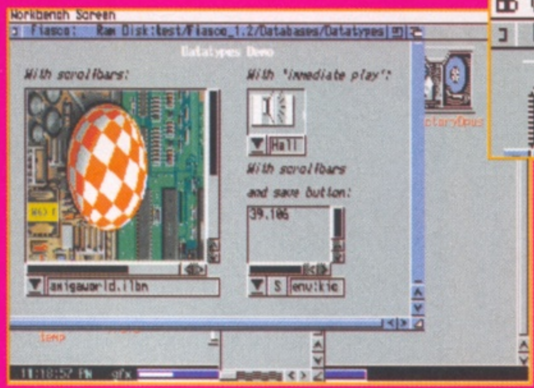
gfx/show/
SView542.lha
TIFFView116.lha
ViewTek21.lha

Video Titling

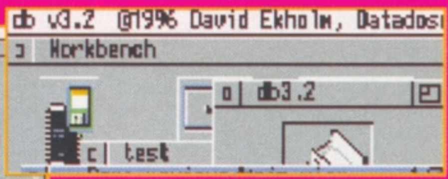
If you want to create title sequences for your videos then the Amiga is still one of the most advanced home computers around. In fact in this month's letters, you can read about a professional video specialist who wouldn't be without his Amiga. Surely then, there can't be PD packages for this sort of advanced work? Well, there are in fact a couple for you to choose from.

JACOSub is a shareware video titler which runs scripts of titling effects. It is not an accessible package for novices, and because of its scripting nature has a limited GUI, but is nevertheless worth checking out. The shareware version, which shows the program logo on each screen, can be registered for $26 (c.£15) for private use or $169 (c.£100) for commercial use.

Much more user-friendly and slightly more intriguing is the NTitler Pro and NWiper Pro set of programs. These two are from the author of the VR Navigator program. Using its VR perspective, NTitler can size and position key frames of 3D titles, set over an IFF image and then animate them. You can load different fonts and text, as well as different backdrops. NWiper can produce the same sort of effects but using IFFs instead of text. The demo versions of both of these packages place some text in the background, but registering both packages only costs £20.



Fiasco is a database that gives you the facility to incorporate images, putting some commercial packages to shame.



DB 3.2 is a database and you can use it to define your own special interface for your projects.

If you want to create your own colourful fonts for videos, then you should try out Font Machine, which maps textures or pictures onto fonts and transforms them into 3D fonts for maximum effect. It's an impressive program, capable of working in 356 colours and anti-aliasing your results. The demo cannot handle fonts larger than 25 pixels in size and is not for commercial use, but you can contact the developers, ClassX, in Italy for details of the full program on 00 39 587 749206. If you are a subscriber, you'll find the demo on this month's subscribers' disk.

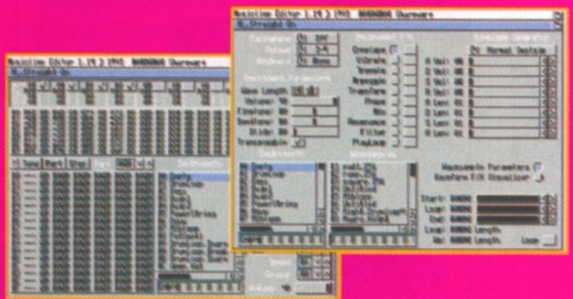
Available on Aminet:

gfx/show/
jcosub25.lha

Music Editors

Creating music needn't cost you an arm and a leg, and there are now several very acceptable packages available. If you want to create modules, then you can choose from the once commercial OctaMED v4, which has been re-released as freeware in the hope of enticing people to upgrade to the much more powerful version six or the brand new OctaMED SoundStudio. As you would expect from a commercial program – even one that's a few years old – it's a quality product which offers a wide choice of effects and you can use it to make some impressive songs. It has a built-in sound sampler so that you can even tweak the samples you use within your creations. There's obviously no comparison between this and the new commercial versions, but at least penniless composers needn't be without software.

Another great program to try is the MusicLine editor. It takes a different approach and is very powerful indeed. Included in the program is a versatile sample editor that can actually add effects to instruments so that you can make some real adjustments to sounds. Although not limited, it is shareware and costs a mere £13 to register.



This MusicLine Editor has all the features you would need in a module editor, including a different approach, coupled with a built-in sample editor.

There is also ProTracker, an old version of a very old program. It's an odd package that has had a real following, so as it's freeware, it could also be worth looking at. A couple of extra music utilities also worth looking at are AudioLab Junior – a sample editor – and a module player. Module players vary in size and you can try anything from the small MiniPlay, which is functional but with an adequate interface, through to the all singing, all dancing, HippoPlayer, which can play almost any format of song, including those that are contained within archives.

Available on Aminet:

mus/edit/
audiolab.lha
mline114.lha
OctaMEDv4.lha
Protracker353.lha

mus/play/
hip223.lha
MiniPlayer321.lha

Final words

There are many more utilities and applications available as both free and shareware, from file managers to backup programs, and math programs to CD file systems (in fact check out AmiCDFS 2 on this month's Coverdisk). We've tried to cover as many mainstream applications as possible, so we haven't had to room to mention some of the utilities which we would consider essentials for any Amiga owner. These include SnoopDOS, DiskSalv and even some 3D programs designed to complement commercial packages, as these are support programs. If you want to look for some of these, then have a look at the Aminet index at one of the locations we mentioned earlier.

If you want to get hold of some or all of the software covered in this article, you'll be glad to know that as much of it as possible, apart from that which is not available to magazine Coverdisks, is available on this month's Amiga Format cover CD-ROM. If you don't have a CD drive, then any PD house will be able to help out. ■

Dat's a DAT, dat's is

Life with heavy duty storage requirements by **Ben Vost**

"So now my machine has **six** out of the possible **seven** SCSI addresses used."

Ho hum, time to reorganise my 2.6 gigabytes of hard drive space. Adding a new hard drive to the system seems so mundane to me these days, but back when my 120Mb drive was a signal for people to raise their eyebrows in appreciation of the massive amounts of storage I had, adding a new hard drive to the set-up was a cause for anxiety attacks and a frantic search for enough floppies (and time) to back the drive up before repartitioning and hoping for the best.

I don't wish to appear blasé about this. It's just that I need that kind of space for the work I do as a journalist, for my 3D projects and for the Mac I emulate using Shapeshifter, so adding another 850Mb drive was the best thing that I could have done.

But what about a Jaz drive? What about the new SyJet? What about? OK, maybe next time, but for now, the deal I had on a Quantum Trailblazer was so good I had to grab it with both hands. Of course, with hard drive prices the way they are, by the time you read this it will probably have become apparent that I've paid far too much for it.

So now my machine has six out of the possible seven SCSI addresses used, what with my original Hitachi 1Gb drive (£650 just eighteen months ago), my Quantum 730Mb

Jaz Drive



Now available in both internal and external versions, the Jaz is big brother to the popular Zip drive, although the cartridges can't be shared between them. The Jaz is also much faster than the Zip and has the added benefit of not being restricted to SCSI IDs 5 or 6, unlike the Zip. The Jaz's cartridge works out to about a gig when formatted and the mechanism for inserting or removing cartridges is much like its little brother, nice and easy.

My only problem with the Jaz drive is that the drive and cartridges are too expensive. The drive itself costs somewhere in the region of £500 and each cartridge is another £100 again. This means that you will need to buy at least four cartridges to save money over buying the same amount of storage as a hard drive. However, things being what they are, the price for the drive will probably come down.

MO Drives

MO, or magneto-optical, drives are falling rapidly out of vogue these days. You should be able to find second-hand 128MB or even 230MB drives at very good prices, and, if cheaper than an EZ drive, they still represent good value for money. MO drives are pretty fast at reading data but they are almost unbearably slow when writing it and since the cartridges require formatting before they can be used you would be well advised to leave them formatting for you overnight.



Zip Drive

The first removable drive for the Amiga at a reasonable price, which was followed swiftly by the SyQuest EZ135 drive I shall talk about in a moment. The Zip looks and behaves almost like a floppy drive, but reads and writes at about 1MB/sec and holds roughly 95MB of data when formatted. The drive itself will set you back about £190 and each 100MB cartridge costs roughly £15, but you can buy them in packs at a discounted rate. The Zip is a smashing little drive which is portable, apart from the monster brick of a power supply that comes with it. I wonder why we in the UK didn't get the nice little diddy power supply that the German version is supplied with. The only real problem with the Zip is the fact that you can only use it at SCSI IDs 5 or 6.



drive, the CD-ROM, the Zip, the new Quantum 850Mb drive and the tool that makes it all so easy and lets me be so cool about slinging drives around – my Hewlett Packard SureStore Tape 2000 – a DAT drive. Actually, Hewlett Packard prefer you to refer to the drive as a DDS (Digital Data Storage) drive; this is simply because you're not supposed to use Digital Audio Tapes for doing backups.

Still, the important thing is how it performs. One thing to bear in mind is the fact that you'll still want to leave your machine backing up overnight, especially if you have as much space as me. Even at the phenomenal rate (compared to backing up on floppies or regular tape drives) of about ten meg a minute, my drives will still take a fair while to back up. The other point to bear in mind is that if you want verification turned on, then you can double the backup time. So a gig backup will only take about one hour and 40 minutes (1000Mb/10Mb per min), but with verification, it will take about three hours and 20 minutes.

However, where the DAT drive really scores over regular tape backup is in searching for files that are on tape. I used to run a Commodore tape drive before I got this baby and you could wait for an hour on a 230Mb tape for one file to be retrieved. Now I can search through over eight gigs of data in less time, thanks to the way the streamer works.

Making Space

File retrieval itself is a bit slower than backing up your hard drive, running as it does at about seven meg a minute, but this is still not too shabby. And this is what allowed me to (takes a



A DAT drive and a mouse. Yesterday.

> "Of course, this drive isn't the **pinnacle** of DAT backup, by any means."

deep breath) back up my current Mac drive (730Mb Quantum), restore onto the 850Mb Quantum, repartition the 730Mb and then reformat it using nearly the same partition names I had given to three of the partitions on my 1Gb Hitachi (Workbench, Work and Other), then back up the files from the remaining partition Data. Then, once all that was done, I deleted all the partitions on the Hitachi and made it one big partition called Data again. Finally, having restored all the files I had just backed up onto Data and after having renamed the other partitions, I had regained almost exactly the same set up as before, only now with an extra 730Mb of space, hurrah!

Of course, this drive isn't the pinnacle of DAT backup, by any means. Drives nowadays usually have backup rates of up to 30Mb a minute, about three times the speed of my HP. Even so, my 10Mb/sec HP is perfectly adequate for my current needs, especially considering the fact that I don't have the necessary spare cash to shell out on buying myself a newer drive.

EZ135 Drive



The EZ drive has recently sustained a price crash in what some cynics see as a desperate attempt to regain the market share they lost when the Zip and Jaz came out, which must make it one of the best value drives on the market at the moment. The EZ drive makes a good comparison with the Zip since its cartridges can hold roughly 135MB of data and they are similar in price to the Zips. The drive will even read and write data faster than the Zip. The only thing against the EZ drive is its SyQuest heritage. Loading a cartridge is far more involved than for a Zip and takes a lot longer with SyQuest's trademark push-button-move-flimsy-lever-approach. The drive itself feels fairly solid but SyQuest cartridges are, of course, reknowned for their fragility.

PD Drives



Panasonic's PD drive is a horse of a different colour. It's not a CD-writer since it doesn't create gold discs. It uses cartridges that can only be read by another PD drive, but these cartridges can be reused. The PD drive also acts as a quad speed caddyless CD-ROM drive, meaning you can get rid of your existing CD-ROM drive. The major problem with the PD drive is the fact that, like the MO, it only writes at excruciatingly slow rates, although the read speed is pretty good.

Shape of things to come...

So what's over the horizon in terms of storage? Undoubtedly hard drive prices will get cheaper yet and their sizes will become larger and in the removable media stakes, SyQuest are determined to regain the ground they have lost to Iomega recently with the announcement of the EZ Flyer 230, which will read and write the EZ135 cartridges but also has cartridges of its own at 230Mb, and the SyJet, a break away from SyQuest's existing technology to a Jaz-style cartridge system that can hold 1.3Gb and transfer data at over 6Mb/sec (given the right controller).

In addition to this lot, the major companies involved in agreeing the standards for the replacement of current CD-ROM technology are rapidly coming to the conclusion that a smaller wavelength of laser light will yield vastly improved amounts of storage space and that, in conjunction with the rapidly falling price of CD-ROM writers, could herald a new standard media in years to come.

Assigns

One thing that strikes you the more space you have at your disposal is that the better it needs to be organised (and the more space you need). For this reason, my method of madness involves the use of that delightful tool of AmigaDOS, the Assign statement.

I try to keep everything locked away in convenient pigeonholes so that I may find it easily and assigns help me greatly in doing this. Got a load of pictures? 'Assign Bitmaps: Data:bitmaps'. Got tons of animations: 'Assign Anims: Data:anims'. Get the idea? Of course, you don't need to go overboard with that idea, otherwise your list of assign statements will make your Amiga take longer to boot, it will chew up more memory and it'll make navigating through DOpus that little bit harder. Still, adding assigns is preferable to having huge numbers of hard drive partitions, something you might feel you want if you get a DAT streamer. Don't do it! Having several hard drive partitions certainly eats more RAM than using assigns and it makes more work if you need to repartition to install a piece of software and there isn't the room in your WorkIV-Graphics_[28Mb]: partition.

> "One thing that strikes you is that the more space you have at your disposal, the better it needs to be **organised.**"

More Choice

The choices for Amiga owners when it comes to storage space are getting better and better and we have to hope that Amiga owners aren't going to be crippled by the 4.3Gb limit forever. It would also be nice to see some of the standards that are now quotidien on the PC available on the Amiga. We might not need RAID (Rapid Array of Inexpensive Disks) right now, but if there is no facility for it in the future we will be further marginalised when we actually need to gain access to 20Gb of data. ■

Amiga problems with strorage

One thing you will only find out once you discover you need huge amounts of storage space is that the Amiga is crippled with respect to exactly how much storage space it can address. Due to limitations with the rigid disk block standard of defining partitions, an Amiga owner can 'only' have 4.3Gb of storage space attached to his or her machine. This total doesn't include CD-ROM drives or tape streamers, but any media that can be written to normally like Jaz drives, Magneto-optical drives or hard drives.

CD-ROM Writers



It's now becoming more commonplace for individuals to have a CD-ROM writer rather than a CD-ROM drive on their machines. With drives that are capable of dual speed write and quad speed read becoming available at only £750, and with the media only costing about a fiver each when bought in bulk, CD-ROM writers are becoming an attractive proposition for mass storage. The only problems with them are that you still need to have plenty of spare hard drive space in which to create an ISO image to go onto the disc and that you can only write once to the gold discs - make a mistake and you have to ditch the disc and start on a new one, something that could easily become quite expensive.

Final Writer 5

A host of new features have been added to Final Writer in its latest incarnation, and now ***Larry Hickmott*** *is impressed.*

It must be that time of the year in the USA because hot on the heels of ImageFX 2.6 arriving through my letterbox came Final Writer 5 from Softwood. The list of new features in this great rival to Wordworth is quite outstanding. The ones that hit me in the face, not literally thankfully, were tables, RTF import, and export and HTML export.

Of these, the first feature I tried my hand at was tables. This is one of the most wanted features I know of if my mail bag from Amiga owners is anything to go by. It took a little while (around 10 seconds in all) to work out how to create my first table in Final Writer, but once that first step was taken, I soon realised this feature is bound to be useful for much more than just making boring tables.

For starters, you can have as little as one cell in your table making it perfect for doing captions. The line weight for the interior and exterior lines can also be set, as can the type of fill and the font used. The preferences panel can be intimidating at first because there are so many attributes. It would have been more user-friendly if Softwood had let you change the attributes for a cell the same way you do for a normal graphic. That is, double click on it and enter the attributes in a requester.

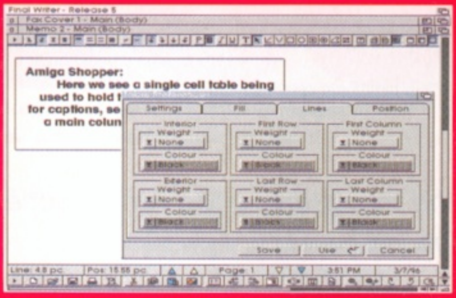
Whatever the method, the result is a usable tables function which should please all those who have been screaming for it for so long.

Not far behind tables in terms of importance is RTF import and export. RTF is a file format which was devised so computer users could exchange files between programs – a file format like ASCII, but with the ability to contain more information about the look of the page within the word processor.

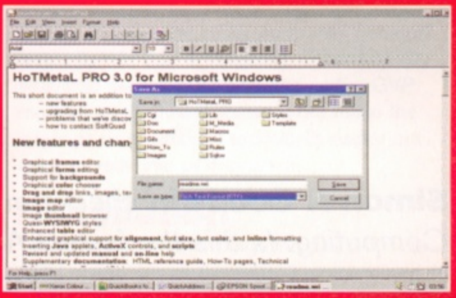
This format is particularly useful for taking files from a word processor on the PC or Macintosh and importing them into your Amiga word processor. Final Writer even lets you set up font remapping tables so that you have control over what fonts it uses when substituting Amiga fonts for PC ones.

The one new feature which I think is a particularly smart move is HTML export. This enables you to create Web pages without having to know about HTML and all the funny codes necessary to tell a Web browser how a page should look. There is also support for images on a Web page, although working with pictures in this way is not as straightforward as it is when just printing to paper.

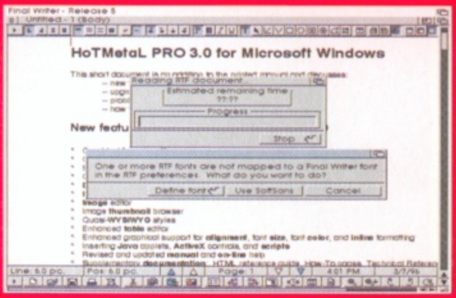
As well as these features, there are many others including support for ASL requesters, template documents, different preferences files and much more. Although Final Writer 4 came with a grammar checker and a much changed interface, I feel there is more meat to this upgrade, and as such version 5 should be very popular with Final Writer users all over the world – I certainly found it a much improved version. Everything I threw at it worked including loading in a BMP image from the PC using Final Writer's newly added support for datatypes. Quite honestly, I'm impressed! ■



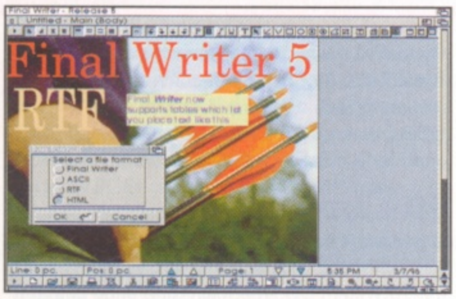
Although this function is probably only meant for creating tables, I found it just as useful for doing single column captions.



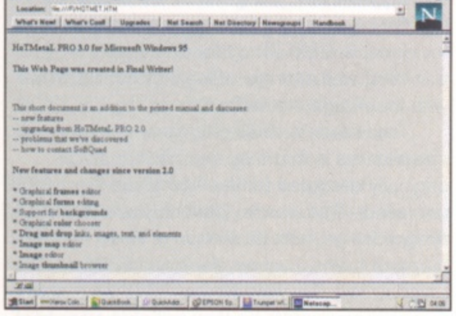
Loading in files from word processors on the PC is easy using Final Writer's new RTF filter.



You can even control the font used when a document has been transferred to your Amiga.



Final Writer version 5 is the best yet with Tables, RTF, HTML and many other new functions.



With Final Writer you can export files as HTML and then use them on the Web. Net fame at last!

Upgrades

Any other Softwood package	£39.95
FW Lite to FW5	£29.95
FW4 to FW5	£22.95
FW4 to FW5 Including Windows 95 plus a Web page	£64.95
FW4 to FW5 + Plus a Web page	£59.95
FW4 to FW5 + Windows95 Version	£34.95

New Features

- New Select Font menu item
- Improved Style Sheet requesters
- Save different sets of preferences
- Save Style Sheets to use in other docs
- Support for document templates
- Auto Correct
- ASL file requesters
- Move sections
- PreLoad Fonts
- Tables
- RTF Export and Import
- Datatype Support
- HTML Export
- Many new ARexx commands

Final Writer 5

Price: £74.95 Full version
Supplier: Softwood Europe
Contact: 01773 836 781
Verdict: 95% Star Buy

GVP 68060

Simon N Goodwin *checks out the top-of-the range Amiga accelerator from GVP and Power Computing. Is this the fastest Amiga yet?*

Today's fastest Amigas run the latest, and reputedly the ultimate, in Motorola's 680XX family of processors - the 68060, capable of a peak throughput of 150 million instructions per second. The 68060 is clocked at 50 MHz, slow by Intel standards, but it can do a lot in each clock cycle. 68000 family chips can read, test and write values in one operation. A 486 or Pentium needs three separate instructions to do the same job.

The 68060 has four internal execution units – two for integer instructions, one for floating point, and a branch unit to accelerate decisions made as a program runs. Branches are a major source of delays on the 68040 - it can perform most instructions in a single cycle but needs up to five cycles to work out each branch.

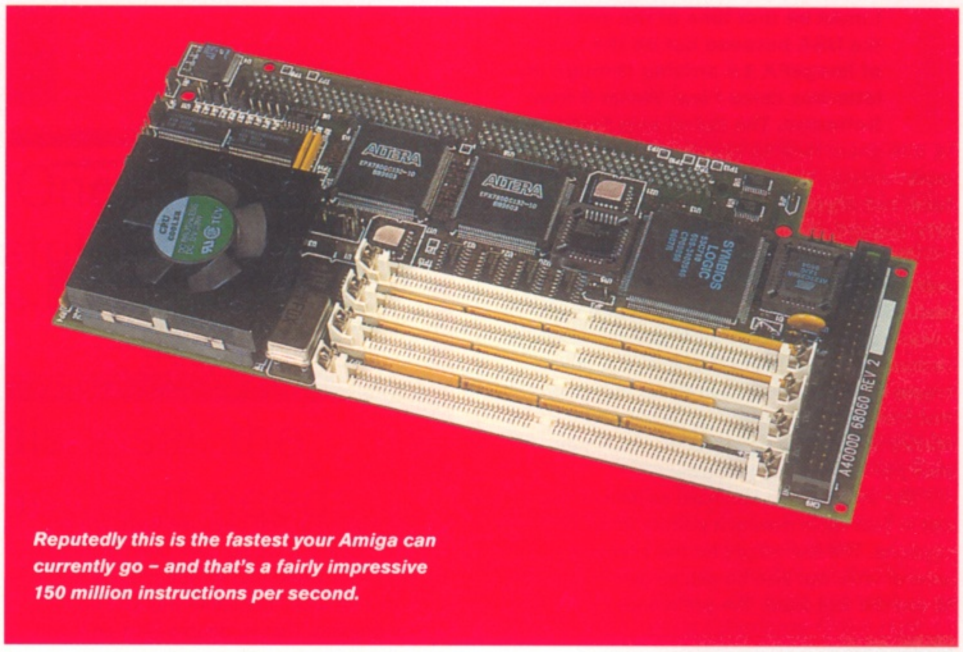
In the 68060, Motorola have excelled themselves by coming up with a scheme where branch instructions take literally no time at all, as long as the processor correctly predicts the flow of control, which it can in the majority of cases.

The 68060 'branch cache' remembers the conditions and destination of the last 256 branches. It looks ahead in the program to find branches which have not yet been reached, and sets up a diversion so that logically (as opposed to physically) consecutive instructions are fetched, following the most likely flow of control. It then monitors the actual conditions, so it can reinstate the alternative path if the predictions turn out wrong.

The 68060 has two 8K caches for data and instructions. The instruction cache is read-only, but the data cache supports writes as well as reads, a major improvement over earlier chips like the 68030 and Intel 486. The snag of this 'copyback' cache is that data is written to memory late. This can cause compatibility problems with naive programs and peripheral drivers, so GVP supply a utility to turn copyback off if required.

Current Amiga software runs at somewhere between two and four times the speed of an A4000/040 when transplanted to a 68060. There is considerable scope for improvement as programs could be optimised so as to make full use of the 68060's dual integer units and its faster instructions.

The improvements over the 68040 - already pretty impressive - are too many to list, but



Reputedly this is the fastest your Amiga can currently go – and that's a fairly impressive 150 million instructions per second.

include complex addressing in a third the number of clock cycles and 32-bit multiplication at seven to ten times the speed of a 68040 at the same clock speed - up to 20 times faster than an A4000/040 running the same code.

There are, however, chinks in the 60860's armour. Some complicated 68020 instructions are not implemented in hardware, and must be trapped and replaced with a software sequence. These include the rarely-used CAS2, CMP2 and CHK2 instructions, and integer multiplication and division giving 64-bit results.

The only instruction missing from the 68060 which was in the 68000 repertoire is MOVEP, the peripheral move instruction. This is rarely used for its original purpose, and most assembler programmers grow old without ever using it, but a few hackers have found it handy when accessing bytes in the reverse order used on IBM clones.

GVP supply a 68060 library which intercepts these unsupported instructions and emulates them. This works, and the emulation is as fast as earlier chips in any case, but the interception is not, so you get less than expected performance on programs that use these instructions.

Such programs include PC Task, Imagine, ChaosPro, Mand2000, Nemac IV and Breathless. As 68060s become more widely available, keen coders will update their programs to avoid these instructions, and the need for emulation will disappear.

The board

In hardware terms the GVP 68060 strongly resembles the best-selling Warp Engine, from MacroSystem US. The main difference is that it has a 68060 processor rather than a 68040, giving it two or three times the processing speed of a Warp. Otherwise the design is strikingly similar - you get a 32-bit processor and 32-bit SCSI 2 FAST disk controller, with four local SIMMs set up for 128-bit burst transfers, and a tangle of logic to communicate with the Amiga motherboard.

The reason A4000 processor cards are so complicated is that they must fit in a slot originally designed for the A3000 and its 68030 processor. This was an ideal upgrade for the old Amiga design, with its mixture of 8, 16 and 32-bit parts (ports, custom chips and RAM respectively). The 68020 and 68030 support 'dynamic bus sizing' so they will plug straight in, with hardly any extra logic - but they crunch instructions relatively slowly.

Modern processors like the 68040 and 68060 have a radically different memory access scheme, designed around 32 and 128-bit transfers to service their large on-chip caches, and need a mass of electrickery to shuffle, delay and wait for old-style transfers.

The result is that A4000 accelerator manufacturers have tried to put more and more hardware onto their boards, to reduce the need for slow and clumsy communication with the rest of the Amiga system. The first development was to put memory onto the processor card, where it can be accessed much faster than the 68030 'fast' RAM on the motherboard.

SCSI standards

The next step was to put a SCSI (Small Computer Systems Interface) controller into the accelerator, speeding up the connection between processor, drives and memory.

Serious Amiga systems use SCSI DMA (Direct Memory Access) controllers. SCSI drives are slightly more expensive than IDE (Integrated Drive Electronics) but much more versatile because each drive has its own processor and recognises a standard set of powerful commands.

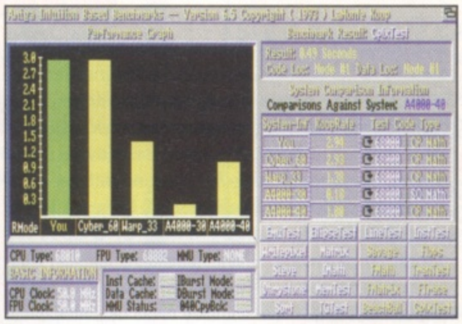
SCSI supports disks, CDs, scanners, tape streamers, optical drives and can even link computers. Every SCSI device may issue commands to any other, sharing connections in a 'chain' of up to eight devices, each identified by a unique 'ID' number, 0 to 7, generally set by switches on the device.

Internal connections are the same for each device, using a 50 way two-row connector, like an IDE plug but 25 per cent wider. External connections use expensive high-density 50 way sockets or expanded versions of the 'Centronics' printer connector. It's cheapest to fit the drives inside the computer, where you can use plastic IDC plugs and ribbon cable.

Old SCSI 1 interfaces got by with a 25 pin D-type, like the Amiga serial or parallel ports. This cost-cutting arrangement is used on most Apple Macs and Commodore's old 2091 board, but it is false economy on SCSI 2. Unlike the DKB/Commodore 4091 and Cyberstorm SCSI interfaces, the GVP board I tested had no external SCSI connector. GVP's US boss Michael Wojciechowski assures me that a high-density adaptor fitting the expansion panel at the back of the A4000 is in the works, and will be bundled with future production.

It's important to make sure that the devices at each end of the SCSI chain are 'terminated', so the GVP board has an option to terminate its end of the chain. Most drives have switchable termination, but occasionally you may need an external plug in terminator. SCSI 2 requires 'active termination', whereas the old, slower, SCSI can get by with cheaper 'passive termination' – a simple matrix of resistors.

SCSI devices can be ordered to transfer data from one drive to another without intervention or blocking other activities. You can even tell disks to search themselves for specific data patterns, and call you back when they're finished. All these advantages mean that the total throughput of a SCSI DMA system is likely to far exceed that of IDE or polled SCSI (e.g. Squirrel), even if the disk mechanisms give the same nominal top speed.



AIBB benchmarks are more indicative of real-life speed than tests like SysInfo.

Do not confuse SCSI 2 FAST DMA controllers with old, simple SCSI interfaces for Zorro 2 or PCMCIA, which cannot access 32 bit memory directly. These require 'polling' which ties up the processor while data is transferred, making them much slower when you want processing to continue at the same time as drive access.

GVP's chosen SCSI controller chip is the same as on the Warp – an NCR 53C710. This is probably the best SCSI 2 FAST chip on the market. It performs 16 byte (128-bit) burst memory transfers on the accelerator card, so SCSI drives run flat out with a barely measurable loss of processing power.

The PD RawSpeed test program showed that transfers at over 4Mb per second slowed the CPU by a negligible 1.3 per cent. This test used a year-old 1Gb IBM drive from Fourth Level Developments.

The controller is on the same card as the memory, and uses the same fast transfer mechanism as the processor. The NCR chip has its own RISC processor with a simple but powerful repertoire of 64 and 96-bit operations, any one of which can transfer up to 16Mb or perform full negotiation to set up a SCSI device, in a single instruction!

You do not program the chip directly – a pity as it would be a nice way of blasting data around memory at tens of megabytes a second – but use the GVP SCSI 2 device to set it off. Once started it can select devices, transfer data and share the SCSI system with other masters, with no need for further intervention from the Amiga's main processor.

The GVP has another feature which shows its refinement and may make a big difference to 'power users' who run lots of interrupts over the Zorro bus. Heavy interrupt loads tend to be associated with networking, data capture and fast serial communications. GVP have added a jumper to make the SCSI controller 'back off' when an interrupt is detected. Other boards, including the Warp Engine and earlier GVP models, let the DMA continue but make the interrupt wait, which is technically easier but cripples real-time performance.

Installation

The GVP accelerator plugs into the 200-way CPU connector on the A4000 motherboard. It has about twenty little 'jumper' switches which must be correctly set for it to work. They tell it the size and speed of your memory and control various optional speed-up features.

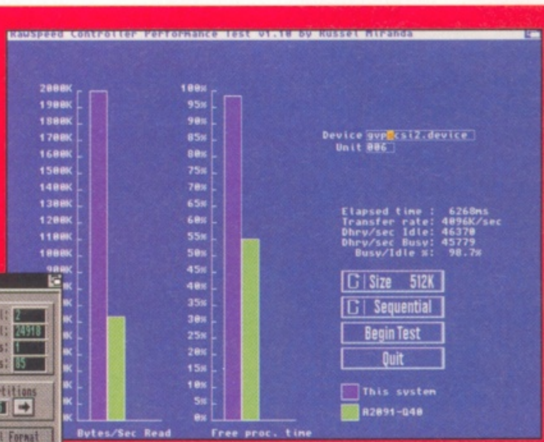
The test model came with a manual for the 68040 version, which was a good mechanical guide but did not explain the vital jumper settings. These were discussed in four additional pages, which were rather confusing and contained obvious errors.

Needless to say it wouldn't work till we contacted GVP's UK outlet, Power Computing, for more specific advice. So make sure you get the full manual, or budget for a few support calls. Once we got the settings right the board worked flawlessly, but there are too many combinations for trial and error to be viable unless you're very lucky or very persistent.

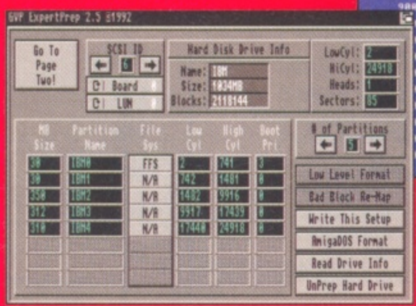
The four 72 pin memory sockets support 4Mb, 8Mb, 16Mb or 32Mb SIMMs. You can move the memory from your motherboard, but it will not go at top speed unless it uses fast 60nS or modern 70nS chips. You need to slow it down for the 80nS SIMMs generally fitted by Commodore, and some 'old' 70nS SIMMs; GVP recommend 60nS SIMMs to be on the safe side, but all my 70nS modules worked fine at the top speed.

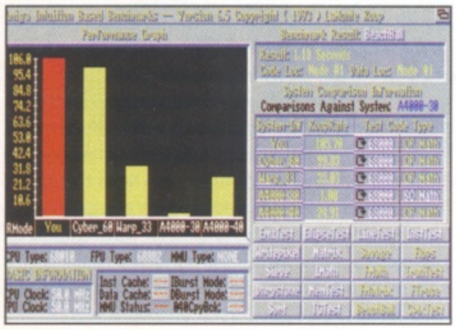
Unlike other Amiga accelerators, the GVP can perform 'interleaved' access to pairs of

Right: The raw transfer speed for the SCSI handler shows 4Mb per second, with minimal CPU interaction.



Below: The '060 card uses the familiar old gvp.scsi.device, so older Prep software will still work fine (but a lot faster).





Surprisingly, the graphics "beachball" test shows a slight superiority over the Cyberstorm.

SIMMs, fetching 64-bits from two SIMMs in the time it would normally take to read 32-bits from one – but this only takes off when your SIMMs are fitted in matching pairs.

The Aminet KICKSPEED program measures the time taken to read the entire 512K Kickstart image ten times. The GVP took 0.49 seconds from ROM (versus 0.46 for the Cyberstorm 68060, and 0.67 for Commodore's 68040 board), 0.35 seconds with the Kickstart copied to a single 4Mb SIMM on the GVP board, 0.21 seconds with a pair of SIMMs (allowing interleaved access) and 0.19 when I set the 'fast memory' jumper as well.

These are best-case results; real programs do not improve as much, because they rarely read memory in such a single-minded consecutive fashion, but interleaving still makes a useful difference.

Comparisons

Anyone thinking of buying the GVP 68060 will want to know how it compares with the German-made Cyberstorm, from Phase Five. The Cyberstorm 68060 is a development of their 68040 unit, using the same carrier and memory boards with a new processor assembly, whereas the GVP is an all-new design for both 68040 and 68060. SCSI is optional on the Cyberstorm, while it's built in by GVP.

The GVP is easier to install and remove, as it comes on one board rather than four, but it's a little easier to change the SIMMs on the Cyberstorm. Both have good-quality SIMM sockets, with plenty of room for double-sided SIMMs – an advantage over the densely packed sockets on the A4000 motherboard, and the ridiculously fragile sockets on the Warp Engine.

Software support is roughly comparable – both come with proprietary programs to format and partition devices. All you need to do to direct HDTOOLBOX to a real SCSI interface is change the tool type or add a parameter to indicate the replacement device – I used the shell command hdtoolbox gvpscsi2.device – the device name must be in lower case letters.

Both systems include 68060 libraries to emulate instructions that the new CPU does not handle in hardware. The Phase Five version has an option to patch offending instructions in-line, rather than trap them as they crop up, which boosts the performance of Imagine and Mand2000, among others. GVP offers notably faster emulation of transcendental functions, giving an advantage of up to 13 per cent on some AIBB tests.

GVP supply KSREMAP, a program to copy the Amiga operating system from ROM to fast memory. This gives a noticeable improvement in speed but in practice the CPU caches soak up much of the difference.

Unlike most 'kickers' KSREMAP has the advantage that it works transparently, with no need to reset the machine, but the snag is that you end up with the same system you had before, just faster. There are various programs, such as KICK, SoftBoot and SKICK, which let you load alternative operating systems from disk, but these require a reset and do not work at all on the 68060.

This is a snag if you want to 'downgrade' to Kickstart 1.3 or 2 for compatibility reasons, or if you want to use one of the test kickstarts available to registered developers. So far there's no way to do this on the GVP.

Phase Five followers could try CyberMap from Aminet. This is touted as a replacement for the Commodore developer utility MAPROM, which loads a ROM image from disk into RAM; unfortunately I was not able to make it work on my A4000+Cyberstorm set-up, and Phase Five Developer Support could only comment, "unsupported feature, sorry." It should be fixed on their Mark 2 board.

The Cyberstorm package includes a version of Enforcer, an invaluable tool for trapping programming errors, but the Phase Five version, known as CyberGuard, has some gaps – in particular it cannot be disabled once turned on. Right now this gives Phase Five the edge over other 68060 vendors for developers and users who value memory protection, but this may soon change as the author of Enforcer, Mike Sinz, has recently been loaned a 68060 and intends to make an update freely available.

I've yet to find any virtual memory utility that supports the 68060 memory management unit, which is subtly different from the 68040 one. If you currently run VMM or GigaMem, the 68060 may not yet be ready for you.

The overall performance of the GVP is very similar to that of the Cyberstorm Mark 1, which should come as no surprise as both use a 50 MHz 68060 processor with local memory. The GVP has a memory speed advantage if you install fast SIMMs in pairs. BusTest 0.07 (from Aminet) found long word writes to fast memory 19 per cent faster than on the Cyberstorm, and almost seven times the speed of Commodore's own 68040 board, slugged by Copyback and its lack of support for fast 16 byte line transfers.

Pricewise, at £749 the GVP 68060 costs £50 more than a basic Cyberstorm, and £50 less than a Mark 2 Cyberstorm 68060 with SCSI interface. If you can live without fast SCSI then the Cyberstorm is cheaper, but you may suffer if you decide to upgrade to SCSI later.

I've been waiting 18 months to receive a working CyberSCSI and I have been fobbed off repeatedly, while the GVP system worked first time, and has continued to work ever since. ■

TABLE 1: Fast memory speeds, measured by BusTest 0.07

Manufaturer	GVP	Cyberstorm	Commodore
Processor	68060	68060	68040Operation
read word	43.3	42.6	12.7
read long	57.7	55.0	13.0
read multiple	55.2	55.2	13.0
write word	42.3	37.6	7.0
write long	47.2	40.2	6.9
write multiple	30.0	38.4	7.0

Note: All figures are in Megabytes per second.

TABLE 2: Cyberstorm versus GVP

AIBB Benchmark results

GRAPHICS	
Ellipse	1.04
Line	0.89
WritePixel	1.09
INTEGER	
EmuTest	1.00
InstTest	0.95
Matrix	1.03
Sieve	0.98
Imath	1.00
Dhrystone	1.01
MemTest	0.97
Sort	0.96
TGtest	0.93
FLOATING POINT	
Savage	1.13
FLOPs	1.01
Fmath	1.00
TranTest	1.13
FMatrix	1.08
FTrace	1.08
Beachball	1.05
CplxTest	1.00

Cyberstorm 060 = 1.00

AIBB -c1 -f2 -fs50 -cs50

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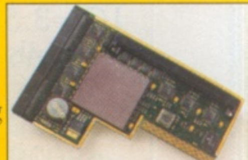


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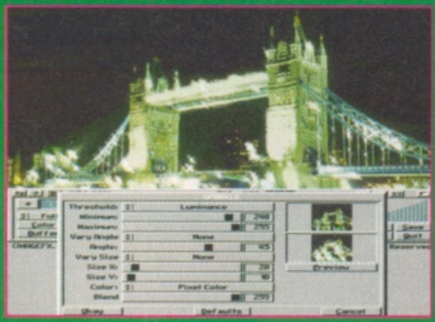
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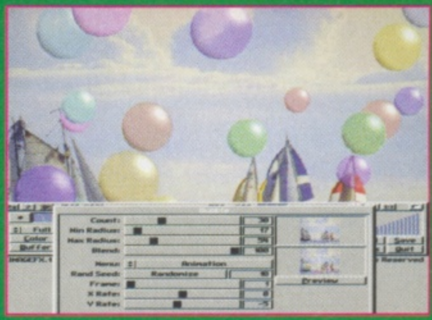
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ImageFX 2.6

Larry Hickmott *delves deep into his pocket for this graphics package… and doesn't regret it.*



More and more of the effects you see in photography can now be added after the image is taken. In this example, we can see star-shaped highlights, for example.



Many of the effects in ImageFX, such as the bubbles here, are very powerful with many different attributes able to be set. Notice how you also get a preview of the effect.

When it comes to working with graphics, the Amiga is as good as any machine I know of. Not only is it blessed with easy to use programs such as Deluxe Paint and Personal Paint, but there are also powerful applications such as ImageFX, which has just been updated by US-based company, Nova Design.

To give you a measure of how good ImageFX is, here at LH Publishing we have both PCs and Macintosh computers, but when we need to process images, more often than not it's ImageFX we turn to. Not only is it easier to use than most graphics programs on foreign platforms, it is also continually being made more powerful with the addition of more effects like those in version 2.6. This latest update follows hot on the heels of a number of others such as ImageFX 2, 2.1 and 2.1a. Those of you who own ImageFX 2 or later can upgrade to 2.6 for less than £40.

Upon running the new version, I was glad to see that the interface was pretty much the same as before. Dig a little deeper, however, and you find a number of new features.

ImageFX 2.6 has improved support for CyberGraphX, enabling you to work in 24-bit in all painting modes. With this also comes a speed improvement in screen redrawing. Graphics boards supported by ImageFX include CyberVision64, PicassoII, Retina Z3, GVP Spectrum, Piccolo and Dominio.

The main improvements, however, can be found in ImageFX's extra special effects. Hot ones such as fire, where you can create a burst of flames like that from a spacecraft (seemly popular with Amiga owners), or a forest fire of intense ferocity. It isn't the ability to create the fire effects that is so stunning though, but more the way you can configure the function to create different types of fires and fire-like effects.

This power has always been ImageFX's strong point, so it comes as no surprise here. However, an interesting point which arises from this level of power is that, in use, taking advantage of the features does require a lot of experimentation to get the desired effect. This is what makes it fun to use.

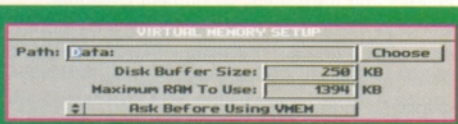
If fire is a bit too hot for you, then why not try something cooler to jazz up your snapshots? A function like Bubbles, for example. This creates transparent bubbles over the top of your image and, like fire, the number of bubbles, their size, colour and so on can all be controlled. There is even a preview window to get an idea of how the finished image will look.

That isn't all, though. Photographers with stars in their eyes can put away the star filters and use ImageFX instead. With control over the star shape, its angle and so on, this function, like most of the others in ImageFX, is far more powerful than you first realise. As a former lensman (photographer to you lot) using a program such as ImageFX to add effects after the image is taken leaves you with a lot more options than adding the effects at the time the image is taken. Easier to add than take away, I think the saying goes.

With so many good things in ImageFX 2.6, it's a shame to spoil the party by being a little on the negative side, but unless you have a 68060, playing with all these effects is a very time-consuming pursuit. For those not in a hurry, that's fine, because you can sit back and wait to be amazed. If, however, you hate waiting, then be prepared for frustration because some of the effects can take many minutes to unfold. All the more reason for hoping that those power Amigas we keep being promised actually come to life in the not too distant future.

After having played with ImageFX 2.6 for a few days now, I can't help but be impressed by the quality of the new features. In this day and age, where Amiga programs struggle to keep up with their counterparts on the PC, it's really great to see a program like this continually being made bigger and better.

I have to admit to not having used Photogenics 2, and so it may be premature to say that ImageFX is the best image processing package on the Amiga. However, when you take into account its scanner support and the way many of the functions can be configured, I don't think too many will argue that this isn't the finest graphics program we have on the Amiga. It isn't cheap and so won't be as popular as some others, but when it comes to processing graphics, ImageFX is the business. ■



A very important feature with ImageFX is its ability to use hard disk space for storing image data which is being processed by the program.



Browser is just one of the utilities that comes with ImageFX. It enables you to create thumbnail icons of images. These can then be viewed in requesters within ImageFX.

New Features

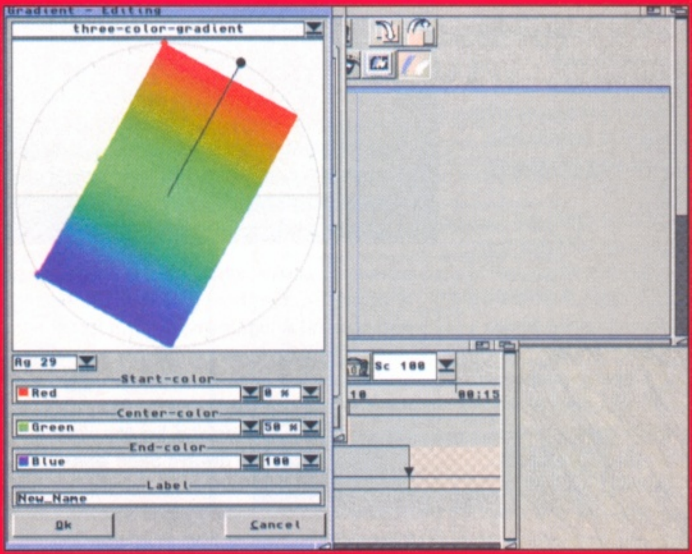
- **Improved CyberGraphX Support**
- **Printer module for Fargo's FotoFun printer**
- **A Super Prefs Printer module for improved output to paper**
- **Support for Hewlett-Packard ScanJet 3c and 4c flatbed SCSI scanners**
- **Module for removing wires, support rods and film scratches from a sequence of frames**
- **Upgraded lightening effect**
- **Bubble feature to add colourful bubbles over an image**
- **Correct colour balance of images**
- **New, more powerful, Distort feature called Displace**
- **Modules to add and remove film grain to/from an image**
- **Fire effects**
- **Guassian Blur**
- **Liquid Distort**
- **Sponge**
- **Sparkle to add star-shaped highlights to images**

ImageFX 2.6

Price: £179.99 Upgrade v2 upwards £39.99
Supplier: Wizard Developments
Contact: 01322 527800
Verdict: 94%

Monument Designer

This powerful new titling package is very good, but can you follow the manual?



Gradients are among the most common backgrounds in most video work and you can create your own here by using the gradient editor.

Monument Designer is a brand-new product for us English-speaking Amigans. It's had incredible success in Germany and became their best-selling video titling package, despite costing the best part of £200.

This success is probably linked to the huge range of powerful features available and the program's intuitive interface.

It's based on a window system with one main window where most of your operations will take place. Most of the tools can either be accessed through the large icons or via the menu system. The interface looks as if it is MUI-based, although it isn't, and can be configured to your needs from within the program itself, or through the external SSAPref tool.

As well as enabling you to set the screenmode for the program, it can also be used to access the program's virtual memory settings. Unlike most virtual memory programs, the SSA virtual memory doesn't require an MMU and will work with a standard 020 processor (the minimum required for operating the program). It also works well with the 060 processor without crashing, as some virtual memory programs do.

This feature enables you to edit title sequences that would otherwise be too large. This is a very useful thing to have in a video titling package, as you may have to playback long sequences. However, thanks to the SSAd animation format, the finished animations can be played back from disk as well. This helped by the fact that most sequences may not have too many changes in each frame.

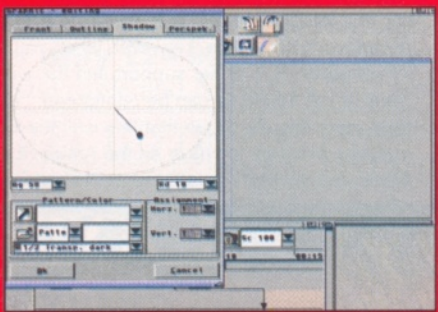
...became their **best-selling** video titling package despite costing the best part of £200

Although an understanding of the principles behind video titling and a modicum of artistic skills are important for producing effective and attractive titling sequences, the quality of the finished production depends largely on the quality of the program's output. In order to achieve the best quality results and smooth images and transitions, Monument Designer works in 32-bit, that's 24-bits and a 8-bit alpha channel. Of course, this means that if you have a 24-bit graphics card, your titles can be displayed in true-colour.

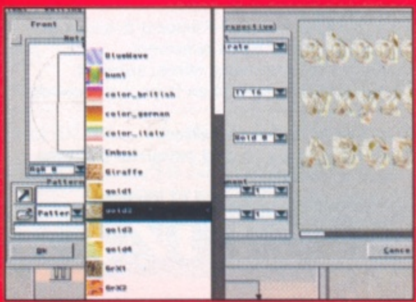
The program will also produce the number of colours in these images so that they can be displayed on AGA and ECS Amiga's and the results, particularly on AGA machines, can be quite impressive.

You also have the option of exporting the results as RGB images, ILBM, SSA or Ado (Adorage) animations. The support for the Adorage and SSA formats enables you create a near ideal suite of video programs by combining the strengths of Adorage, ClariSSA and Monument Designer.

Monument Designer's main interface works more like a DTP package than a traditional titler. The main window provides you with an overview of your project and enables you to position and otherwise modify the elements of your project



As with text, graphical objects can be given a variety of different looks and effects.



Thumbnails can provide you with an idea of what a texture or gradient will look like.

on an individual basis. When you are designing your project, the default view is a preview which will stop things from being slowed down by constant re-rendering. However, if you do have the CybergraphX system and a 24-bit card, you can enjoy the benefits of a 24-bit display.

The overview provides you with a scaled-down representation of how your images will appear. The area of a full screen is described by a blue square. There are as many of these as you need, aligned to the left and below the first one, and if you create an object that goes outside the bounds of the current screen, another one is added automatically. This enables you to create titles that move both horizontally and vertically.

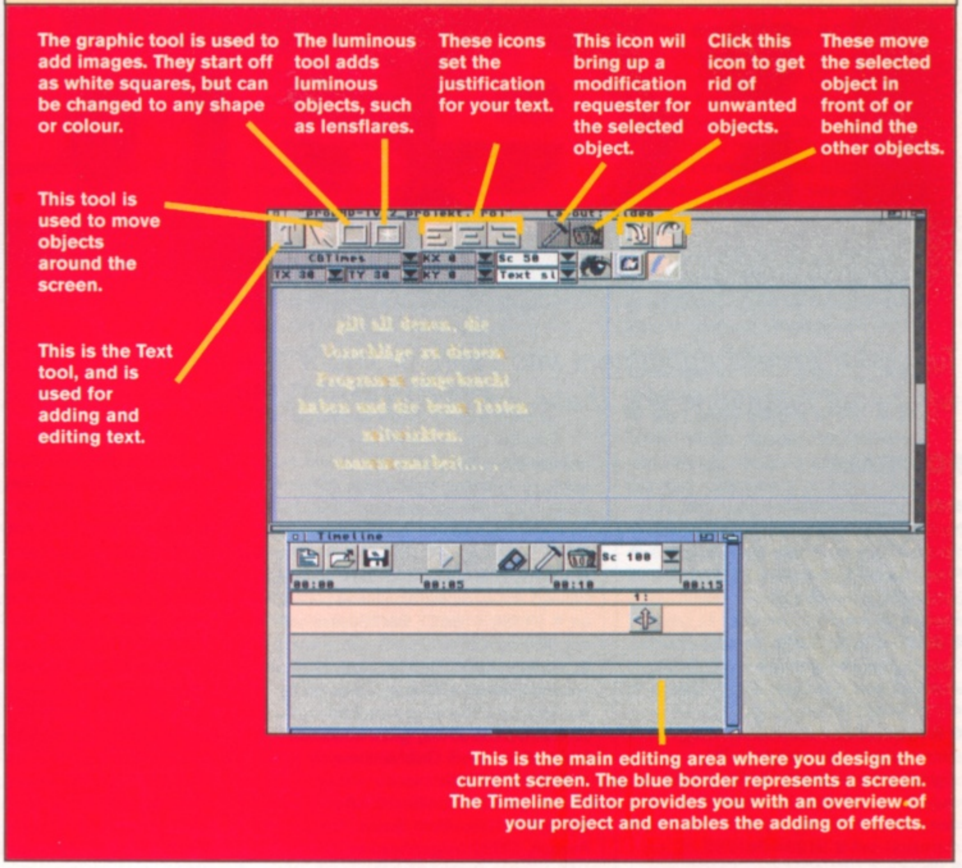
Unlike most other programs of its kind, Monument Designer is object-orientated, so that just because you place one image in a particular position, it doesn't have to remain there or keep its current appearance. You can move each element whether it is text, an image or an effect, around the screen and even move them backward of forward as you would in a DTP package. Objects that have alpha channels applied to them will show through their backgrounds, wherever they are, as a bitmap image is not created until it is rendered.

Rendering can take quite a long time, as there are a lot of calculations, such as transparencies, that need to be made before it is played back. Fortunately, the play back window has an option to speed this process up. You are given control over the animation's resolution, colour-mode and quality. Another feature found in this window that is also very useful is the memory defragmentation button, which will also help speed up the play back of your animation.

There are a variety of tools and object types to choose from and most are available as icons. These include text, graphic and luminous objects. Each type of object, once double-clicked on, will bring up an appropriate modification requester which will provide several methods of adjustments.

The most important element in most title sequences is the text, after all that's the reason for having them in the first place. The program is capable of loading scalable Compugraphic fonts, so you can resize your text without loss of quality. For added control you can even adjust the horizontal and vertical size of your text separately, as well as adjusting the orientation of the characters, their outline, add a drop shadow

Tools, objects and icons.



or even create a perspective effect which makes them look 3-dimensional.

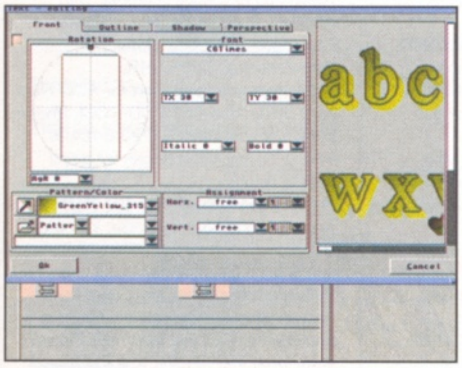
It is also possible to modify the appearance of the face of your text by adding a texture (an IFF image) or a gradient. To help you create the latter, the program has a built-in gradient designer. You can use it to create two or three-colour gradients and adjust their angle by "hand". You can also import ASCII text.

The same options are available for graphics and luminous objects as well. Graphics objects are image based and although they start off as squares, they can be altered by using images as masks and adding alpha channels. Luminous objects are mainly used for light effects such as lenseflares and their shapes can be based on alpha channels.

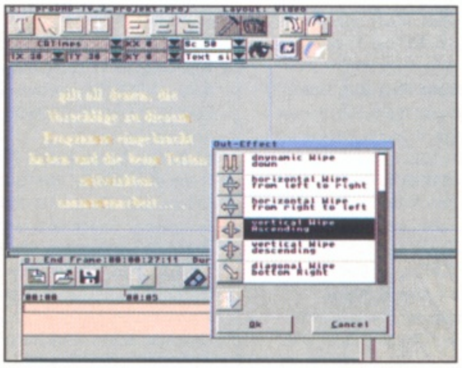
The last step of most titling projects is to animate them. Most titling sequences are pretty steady affairs with fixed backgrounds and moving text, all the same it is good to have an overview of what is going on. This, as well as other features, is provided by the Timeline editor. Although it's not very well explained in the manual, this a valuable tool, not only for providing overall control of your sequences, but also for adding effects. You are given access to a wide range of wipe effects, for either wiping in or out. Initially the Timeline looks confusing and hardly worth the effort of learning how to use it, however, the effort is well rewarded as this is a feature that has the potential to become even more powerful.

The real basis of the program's strength though, is its implementation of textures, alpha channels and masks. This gives you almost limitless options for creating different shapes and surface appearances. It also makes for the creation of smooth compositions and a variety of effects and fades.

The combination of a wide range of tools and effects with an interface that's easy to use makes creating effective title sequences easier and more professional. Monument Designer just about has it all, except for the manual, which is in definite need of re-structuring to make it more accessible. But if you've been dreaming of a powerful and easy-to-use titling package with brilliant output quality, then your dream has finally come true. ■



Monument Design allows you to alter the apperance of your text with several options.



Another important aspect of creating effective titles is having different wipe effects.

Monument Designer V2

Price: £179.90
Supplier: White Knight Technology
Contact: 01920 822321

Verdict: 92%

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● **Amiga 1200,** 170Mb hard drive, 608030 Viper and 1 extra Mb RAM, £260 ono (COD £10), will split! Call ☎ 01223 502259.

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● **A500 with RAM,** as new with games and A520 £175 ono. Call Roland on ☎ 01375 641905 (Essex).

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● **Top of the range genlock** outputting S-VHS and VHS with wipes and fades. Cost £500 as new and boxed £200. ☎ 01271 870549.

● **Amiga 4000/30,** 10Mb, 340 HD, 25MHz FPU, Microvitec 1440 multisync monitor plus loads of software including Final Writer 4, £1,200 ono. Please write to: Dave, 128 Easton Way, Shepperton, Middlesex TW17 8ES.

● **CDTV,** little used, £70; GVP G-Lock unused software, £100. Please phone on ☎ 01580 819427, East Sussex at any time.

● **Amiga 1200,** 540Mb hard drive, second external disk drive, three mice, two joysticks, lots of games, books, serious software, very good condition. Wants £450 ono. Call Matthew on ☎ 01234 271022.

● **Amiga CD32,** over 10 full-price games: includes Alien Breed, Tower Assault, CD32 magazines and cover CDs, one controller. Call Bruce on ☎ 01348 873302. £120 ono.

● **Amiga 4000/040,** 18Mb, 24-bit, 300Mb HD, multisync monitor (autoscan), over £1,800 of pro graphic and animation software (originals). Sell for £1,500 ono. Call ☎ 01502 581160.

● **Amiga Tower,** upgrade your A1200 Tower and motherboard, 5xZorro, 4xPC-AT, 5x3.5, 3x5.25 bays, PSU, keyboard, mouse, PCMCIA adaptor, hard drive and floppy cables, £200. Call Andy ☎ 01993 846078.

● **SCSI card (Nexus)** with 40Mb drive and 2Mb RAM, £65, A2088 bridgeboard with external 5.25-inch drive and manual, £20, driver disks supplied. Both removed working from A4000. ☎ 01705 479976.

● **AdPro 2.3,** £50, Oktagon 2008 SCSI controller and 52Mb Quantum, £60. Call ☎ 01235 848412, after 7pm.

● **A600, 2Mb RAM,** joystick, mouse, keyboard cover, all manuals, software, instructions, original software package, plus Space Shuttle sim, Transwrite, Pinball, Armageddon, Risky Woods and more, £180 ono. ☎ 01709 719849, after 6pm.

● **Art Department Pro 2.3,** boxed with hard manual and disks. All as new £40 + £6 postage. If you're interested call ☎ 01502 581160.

● **Supra RAM 500RX,** external RAM expansion with 2Mb RAM, expandable to 8Mb with thru port, switchable, complete with original box, software and instructions, £50 ono. Call on ☎ 0113 287 6413 after 6.30pm.

● **RAM expansion** for Amiga 500 not+ for Trapdoor, Ashcom, 2Mb, with gary board and clock, £50 ono. Also WB2.04 chip £10. Call Leeds ☎ 0113 287 6413, after 6.30pm.

● **A1200,** 250Mb HD, external disk drive, colour monitor, lots of software, £400. ☎ 01634 295737.

● **A1200,** 50MHz + FPU, 2Mb Fast RAM, 210Mb hard drive, sampler, tons of software, Imagine 3, Devpac 3, games, some RkM manuals and lots of mags, £600 the lot. Give Huw a call on ☎ 01239 682296. It's a bargain!

● **Prima A1200 RAM** board with battery backed-up clock. No RAM. Can be populated up to 8Mb, £40 ono, including delivery. E-mail jono@enterprise.net or call me on ☎ 01757 705102.

● **Amiga 1200,** Blizzard 1220/4Mb RAM + 68882 FPU, turbo memory board. Wants £170. Call Matthew on ☎ 01234 271022.

● **A2000,** 350Mb SCSI HDD, 14-inch colour monitor, manuals, games, serious software, £200 ono. For details call ☎ 0117 983 7075, evenings.

● **AMOS,** Easy AMOS, AMOS Pro, AMOS Compiler, all as new, boxed with manuals, £50, will split. Phone ☎ 01473 686312, or write to 20 Glastonbury Close, Ipswich IP2 9EE.

● **Amiga 500,** 0.5Mb upgrade and 8Mb RAM expansion, boxed with manuals, modulator, joystick, mouse, printer, dust cover, Deluxe Paint III and some disks as well, £160. Call on ☎ 01703 872236.

● **Squirrel SCSI** interface £45, Goldstar CD-ROM drive £100, Seagate 2.5-inch hard drive, 64Mb, £60; DPaint IV AGA (unused), £30. Call ☎ 01273 493659 (Sussex).

● **Power dual-speed** CD-ROM with Squirrel, many CDs including Aminet, games and software, including ImageFX, Imagine 3, Sim City. Offers. Call Brian ☎ 01539 723412, up to 8pm only.

● **Imagine 3 disks** and manual £45, Audiomaster IV sampling software, £25, AVR MIDI interface £15. Call Darren ☎ 01689 600826, evenings and weekends.

● **A500, 2Mb,** Action Replay Mk3, loads of software, very good condition. Offers. Call Chris ☎ 01273 682568 (evenings). Quick sale required.

● **MIDI keyboard,** Casio CT670, 61 full size keys, 220 sounds, 110 rhythms, hardly used. Complete with stand, mains adaptor, leads and manuals, £200. Call Darren ☎ 01689 600826, evenings and weekends.

● **Picasso II,** 2Mb graphic card, manuals and software, £150. Blizzard 1230-III, 50MHz accelerator card, £125. Call Dean ☎ 01993 846270, after 6pm.

● **A1200,** 170Mb HD, GVP030, 4Mb RAM, Squirrel, SCSI, Zip drive, dual-speed CD-ROM, 1084 monitor, HD external drive, lots of software, £845 ono. Call Paul ☎ 01923 462008 (Watford), evenings.

● **Amiga 1200** with 170Mb HD, complete with mouse, joystick, software and original box, £275 for quick sale. ☎ 01395 276661.

● **Software:** Sensible World Of Soccer, Civilization, Odyssey, Darkseed, Leander and other variously priced from £3 to £7. Call for details on ☎ 0121 525 4024.

● **Golden Gate** 386SX 25MHz PC emulator for Amigas 2/3/4000, 8Mb RAM, Maths Co-pro, 340Mb HD, 1Mb S-VGA card, MS-DOS v6.22, plus Windows v3.1. Bargain at £350. Phone Matt on ☎ 01793 825751.

WANTED

● **Arcade Snooker coverdisk.** I have tried unsuccessfully to replace my stolen copy. Can you help? Kris Faulkner, 28 St. Lukes Avenue, Maidstone, Kent ME14 5AL.

● **Wanted: Amiga contacts.** Write to Darren at 24 Hambridge Road, Greenham, Newbury, Berkshire RG14 5TA. 100 per cent reply.

● **Roleplaying games,** adventures, war games, Captive, Waxworks, Pool of Radiance, Warlords, Dungeon Master, Legend, Spirit of Excalibur, many others. Ask for a list. Andrea Campanini, via Fratelli Rosselli 45, 47100, Forli, Italy.

● **A570 CD drive,** working or not, A590 HD or Simkar (compat. with A500+). Rod, 14 St. John's Close, Cherington, Shipston Stour, Warwickshire. CV36 5HR.

● **Memory expansion** for ADD-Hard hard drive. Also A570 CD-ROM. Phone Mark any time on ☎ 01795 842428. Willing to pay good prices for good stuff in return.

● **Commodore A570 CD-ROM** drive, in good working order. Will pay postage. Call ☎ 01245 323106 if you can help.

● **Snooker game.** My Coverdisk of Arcade Snooker was stolen. It's now unavailable. Can you help me? Please state what you require. Kris Faulkner, 28 St. Lukes Avenue, Maidstone, Kent ME14 5AL.

● **Datel genitizing tablet** for use with Amiga 500+ (Tabby or Glidepoint not suitable). Would be prepared to swap for Amiga software. Call on ☎ 01457 862189.

● **A4000/040** in good condition with manuals. Reasonable price paid. Mr. R. A. Whitehead, 21 South Drive, Shortstown, Bedford MK42 0UD.

● **V-Lab Motion** for Amiga 4000, price dependent on age and version. Call between 9am and 3.30pm weekdays or any time weekends. Call ☎ 01443 776515. Ask for Jeff. Also wanted LightWave videos.

● **Wanted: 2.5-inch IDE** hard drive cable. Needed urgently! Call Alan on ☎ 01294 276396.

● **Flicker Fixer** and CDTV software required for an A1500. If you can help call ☎ 0171 263 8882.

● **A4000 keyboard**, must be white, no A3000 keyboards please. Must be mint. Can part exchange my A3000 keyboard if needed. Call Dave on Blackpool ☎ 01253 595300 at any time of day.

● **Wanted: Digita Organiser**, Datastore, TurboCalc, complete original versions with manuals only please. The best price paid. Call me any time on ☎ 01206 210857.

● **Quarterback Tools**. Please ring me on ☎ 01737 779540, or e-mail godman@mbox.gaia.com.co.uk

● **Wanted extremely urgently!** Hint books for Eye of the Beholder 1 and 2. Good price paid. London area. ☎ 0181 669 1247 evenings. The situation is critical.

● **Help A500+ owner,** 1Mb, needs info on HDs and CD-ROM drives. What can I attach? Contact: Paul, 1 Clydesdale Path, Borehamwood, Herts WD6 2SE.. I'm on the dole and skint!

● **Wanted for Amiga** A570, CD-ROM operating manual. Please ring ☎ 01202 881421, any time.

● **Enterprising dealer** to sell me a printhead for my Nakajima AR40D printer. I've been everywhere man, but no joy! ☎ 01507 338044.

● **Can anyone** in the Sheffield/Chesterfield area with a CD-ROM help me get mine to work. I don't know what to try next. David on Sheffield ☎ 0114 274 6357.

● **A4000 68040** processor card and 040 chip wanted. Will pay around £175. Phone David on ☎ 01277 210197, Monday to Friday, 3pm to 8pm only please.

● **Urgently required:** Datascan Pro software (or similar scanning software) for Zydec Handy Scanner (circa 1991). Sensible price (or swap PD?). Write to Sean Kennedy, 41 Larwood, Worksop, Notts. S81 0HH.

PERSONAL

● **Pentrisoft, the programmers'** user group. Advice, contacts, testing for all languages, at all levels. Free membership. Write to: Mark Harman, 3 Highlea Close, St. Leonards, O/S, East Sussex TN37 7SS.

● **Contacting cool guys and gals** all around the globe. How about swapping stuff with the Greendude if you want to? Contact me at 10 Stone House, Forden, Welshpool, Powys SY21 8LT. Okay!

● **27 year-old** owner seeks local users (preferably 18+) for the usual Amiga-related things and nights out on the town. Contact Mark, Eastview, Fernleigh Road, Mannamead, Plymouth PL3 5AN if interested.

● **Serious Amiga contacts** wanted! Write to William Redhouse at: Tarka, Kirkby Malham, Skipton, W. Yorks BD23 4BX. Worldwide penpals accepted. I look forward to your letter. Please write in English.

● **West Yorkshire** Amiga users. Monthly friendly meeting every last Tuesday of each month. Join fellow Amiga users. Tutorials given. Ample parking. Huddersfield area. Absolute beginners welcome. Call Tony on ☎ 01484 460888.

● **LightWave animators/** modellers wanted to work on exciting projects. Phone Bob ☎ 01444 247223.

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Backwoods BBS, SySop Luigi, weekends 2pm-10pm. Call ☎ 01463 870022. Needs new users.

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● **The Domain**. Amiga-only PD fanzine. Issue one out now. Send S.A.E. for subscription details to: Domain, 6 Saxon Court, Kingsway Gardens, Andover, Hants. SP10 4BU. Note: free, except for postage.

● **Visions issue one,** out now. Sci-fi, fantasy, horror, fiction 'zine. Only 50p (+S.A.E.) from: Sean Kennedy, 41 Larwood, Worksop, Notts. S81 0HH. Contributors also needed for future issues. S.A.E. for info.

● **Micks Cupboard BBS,** 24 hours, seven days a week, Amiga and PC, 9,600bps, files no ratios, friendly SysOp. ☎ 01702 303290.

● **The Big Squeeze BBS,** ☎ 01563 532882, speeds 2,400 to 28,800, latest Aminet CDs, 2.4Gb, running Xenolink Pro software, friendly SysOp, weekends only, 24 hours, loads of file areas, new BBS.

● **Guru medication,** BBSI, Fido, Aminet. Over 1,000+ files on-line. Speeds up to 14,400. Fido points available free of charge. Call me on ☎ 0181 401 2502, 24 hours. Node 2 from May 1996.

● **Visions**. A new SF/fantasy/horror fanzine (printed) needs fiction and artwork for issue one. Send S.A.E. for full details to: S. Kennedy, 41 Larwood, Worksop, Notts S81 0HH.

● **No Limits BBS** ☎ 01293 413668, v34+, 1.2Gb, Xendrix Pro software, very friendly SysOp, free call to other Eurobell subscribers, complete Fidonet backbone, many other networks, perfect for points. Binarynet HQ!

● **Echoes BBS**, Camberley, Fidonet, Sportsnet, plus many more. Always the latest Aminet CD-ROM on-line. Free pointing all networks, Xenolink Pro software, friendly, helpful SysOp. All welcome, 24 hours ☎ 01276 62099.

● **Entity** is a new diskmag that aims to keep Amiga alive by getting you creating. Issue one and two ready. Contact: Jono, 25 Denness Place, Llandudno LL30 2UX, for more info.

● **New Amiga** diskmag. £2 for two disks on AMOS, Imagine, PD and more. Jono, 25 Denness Place, Llandudno, Gwynedd, Wales LL30 2UX.

● **Mogsy's BBS.** Contact Anthony Morris on ☎ 01772 496590. Amiga only! Over 1,000 files on-line and CDs to choose from! Speeds 2,400 to 28,800. 24 hours. Call today!

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Amiga answers

Intos Problem



I have bought AS back issue 57 and was happy to find INTOS on the coverdisk. However, I have a problem. When I run any of the INTOS example programs all I get is the Workbench screen and nothing happens. I then flip back to Amos to find the program is still at the 'Multiwait' command. I have installed the 'Run' command in 'Sys:c/' as well as the 'Intos_Cust.lib' in 'Sys:Libs/'. I have an A4000/30, WB3 and use AmosPro V2. Please help me.

Manzoni Ermanno
Italy

This one has me stumped. Your problem is usually caused by not having 'Run' in 'C', but you say you have done that. The only other thing I know of that could cause this is having too many tasks running in the background – try disabling anything you have in your 'WBstartup' drawer. I am Clutching at straws here, but that may just do the trick.

You could also try Installing INTOS on a floppy version of Amos. Try it with no extensions installed, except INTOS of course, because some extensions (Turbo is one of them) can cause problems with INTOS. If that works then you know it's your Workbench or Amos set-up that is causing the problem and hopefully you can work it out from there.

Dave

Graffic Details



I am trying to convert JPEG, Giff and PCX images to IFFs, but only have an A1200 with 2Mb RAM. I just run out of memory trying with Graphics Grinder, Blackboard and others, but cannot afford more memory. Can you recommend a good PD program for this job?

D Jones
Wakefield

It is going to be very hard to convert images with only 2Mbs. As you can see from this month's feature, there are some very good image programs in the PD, but they will all fall foul of memory if you are trying to convert images of any significant size. If you had a slightly higher system, you could get around it using virtual memory or with the new version of Photogenics which has virtual images. I doubt that there is any program that will convert images using disk space as a temporary directory, although you could try Transition which was on sister magazine Amiga Format's Coverdisk last August.

The only alternative, and this is not guaranteed to work, is to strip down a version of Workbench to the minimum and boot it – make sure you have nothing started in your user-startup or WBStartup drawer (you could try one that doesn't go as far as Workbench on boot-up and work from the CLI). Then start a screen grabber, such as CRSnap, use a small

The experts at hand to help you…



Whenever you try out something different with your Amiga, or buy a new piece of kit, you might come across problems that you don't know how to solve. That's what these pages are here for – to guide you through your difficulties and get you using and enjoying your machine to the full. We've got a great group of experts to hand with their own in-depth knowledge in special Amiga areas. So put them to the test, and send your queries in.



Paul Overaa is our Operating Systems programming expert. He has written several books, including: Mastering Amiga Assembler, Mastering Amiga ARexx and Mastering Amiga C. When he's not drinking red wine or wind surfing, Paul can be found making music and designing programs on his Amiga.



John Kennedy is our hardware and music expert. He has written Supertests and features alike for Amiga Shopper in the past – this month he continues with his CanDo tutorial on page 44, teaching you everything you need to know about this excellent program.



Gary Whiteley is our expert on video and graphics. He regularly produces work for films and TV. Gary has also written several books on his favourite subjects and these include Amiga Desktop Video, published by Future Publishing (call ☎ 01225 822511 to order a copy). Gary also regularly reviews new products for Amiga Shopper.



Larry Hickmott is our DTP and word processing expert. He produces his own DTP magazine, called Em, and has written several books, including The Wordworth Companion for Digita and Future Publishing's books division.

Answers contents

If you're looking for a particular problem, this handy index will help you find the answers you need:

image viewer, for example the small version of Viewtek, to view the image and capture the screen. The capture will be saved as an IFF.

Dave

Chunky Problems

Software

Having obtained through the Coverdisk channel a copy of Iconian v.2.96, I discovered that I could not make it run due to the program not being able to find the Chunkyimage.class. Although the software was installed using the supplied installer and the image file finding its way into the Classes directory on the WB partition, the program refused to go beyond the requester that popped up on the WB window. After reading the Installer script and finding it to be logical I gave up, thinking there must be a bug in the software.

Imagine my delight when I found version 2.98 of Iconian on this month's AS Coverdisk. Great, I thought. They've killed the bug. So, imagine my horror when after installing the new version up popped the same error – "Cannot find Chunkyimage.class 2.0"!

Determined to get to the bottom of this I ran it through SnoopDOS, and guess what? The



An exclusive version of the brilliant Iconian 3 featured on the Coverdisk of issue 64.

software is looking in the root dir of libs: for the chunkyimage.class, compleximage.class and the pop.gadget too. As for the gauge.image, it appears to make absolutely no difference if you leave it out altogether.

I transferred all of these files into the root of libs:, deleting them from all other places on the drive (to prove a point) and the program runs like a dream.

Could you let the thousands of other Amigans who are tearing their hair out (and perhaps the author) know the simple solution.

T Williamson
Leicester

The way that the classes and libs are set out is logical, but a little confusing. It may be that some other people are having the same problem and so thanks for sorting it out. However, most people should have an assign in their startup-sequence that points libs: to the classes directory too (and vice versa). So the program would search libs: for a class, not find it and then search the classes directory too. Of course, it depends on how standard you've kept you startup-sequence.

Dave

Amiga Format

Software

Help! I cannot format floppy disks. If I place a disk formatted to MS-DOS in the drive and select Format from the Icon menu, I get no response. If I place an Amiga formatted disk in the drive and select Format, I get the message "Unable to open Tool SYS:System/format". Can you recommend a book that deals with error messages?

D Pooley
Tonbridge

This is easy and the Amiga is telling you the problem. You should have the Format command in the System drawer on the System (Workbench) partition of your hard drive. Somehow this has been deleted. Get your copy of the Workbench floppy and copy it back into the directory. The quickest way would be to put the WB disk in your internal floppy drive, open a CLI (Shell) and type: copy df0:system/format sys:system/format <return>. For more details on how your machine works, why not try the new book from HiSoft, or one of Bruce Smith Books' excellent guides to the Amiga?

Dave

Snappy Solution

Software

I've loaded the CRSnap program from the Utility Zone of AS62, but it will not capture screens. How exactly does it work? The docs show up fine, but I don't understand them completely.

H Fertig
Sarasuta, USA

Firstly, check you have a machine that meets the program requirements (this goes for any program that refuses to run). CRSnap has several settings in the Icon Tooltypes that you must set before starting the program. To do this, click once on the program icon and then select Information from the Icon menu on Workbench. When the window pops up, click on the line that selects the destination directory where the screen captures will be saved. Change this to one that suits you and one that exists on your drive. You must press return after altering a line and then click on Save to make the changes.

You can also change the hotkey if you want. When this is done, double click on the program and it will be loaded. There is no interface, so you won't see anything. (If you want, you can check it's loaded or remove it, using the Exchange commodity that's in your machines Commodities drawer.) Now when you activate the hotkey, a snapshot will be saved to disk in the destination you selected. Note that some screens will not allow screen captures, most notably games and AMOS programs.

Dave

Guiding Light

Software

The AmigaGuide on my A1200 does not work correctly. It links to other nodes, but not to data files (pictures and sounds). When the link button is pushed to show a picture, it says "Tipo de datos desconocido (Unknown type of data)" even though they are standard IFF files.

J Narita
Del Iztacalco, Mexico

The Amiga in Spanish (I think), how excellent. Although they may be standard IFFs, AmigaGuide still uses a datatype to load them and you need all the elements in your Workbench partition from your Workbench floppy. Either copy them across if you know which ones are missing, or copy the whole of your Workbench back on. Otherwise, you could use SnoopDOS to see which files are missing and copy those. (Basically it's going to be your Classes directory.)

Dave

Missing Disk

Software

I was surprised when I got your magazine in the mail, more by the look of it than the missing second Coverdisk. I honestly thought the Subscriber's disk was gone too (I didn't get mine) until I read otherwise in the editorial. Fortunately the quality of AS hasn't suffered, though.

Anyway, on to the query. I have some picture files in SFW (Seatlle Photoworks) which I got from a friend with a PC. Unfortunately I cannot find a program which can view them. Do you have any ideas?

S Gunnarson
Stord, Norway

You should have received your Subscriber's disk. If it hasn't turned up please contact our Customer Services department on ☎ 01225 822511, and they will be able to sort the problem out for you. My apologies for this frustrating omission.

You could try a program such as Photogenics which can load nearly any type of image, or the Shareware Superview, which is also extremely good. If you don't have any luck with that, then why not get your friend to convert them on his PC into a more universal format, such as JPEG. He must have Paint Shop Pro (the PC Shareware paint package) which can even save IFFs.

Dave

▶ 36

Icon If You Can

Software

It sounds to me as if J Lammin (AS63/Q&A/Multi-coloured Icons) has a bugged IconEdit like mine. The one I have came with an A1200/WB3.0 and I often suffered from black and white icons after saving (less often when Saving As but there nonetheless). I was also restricted to four colours even though eight were available.

Using a friend's A2000 with WB3.1, I was surprised that his IconEdit worked fine with eight colours. A copy of his program worked fine on mine too!

P Holland
Poole

Ah, well, technically taking a copy of that program isn't legal. However, I think the best solution is to chuck IconEdit out because it's useless anyway. Why use it when you can use Iconian? (Which surpasses it so many times it's just embarrassing.)

Dave

Enforcer

Coding

I am using Dice C on my A1200 and would like to be able to run the 'Enforcer' utility that comes with Dice, but can't because the A1200 doesn't have a MMU. The Enforcer docs seem to suggest that a 68851 can be connected to a 68020, but how do you do this and how much will it cost?

Morris Wilding
Coventry

Enforcer, for those of you who don't know, is a utility used to check for illegal memory access in Amiga programs. It's a great tool (and used by almost all Amiga software developers) but... because of the way Enforcer works it can only run on Amigas that have an MMU (memory management unit) on board.

Sorry to be the bearer of bad news, but as far as A1200 users are concerned the only realistic option is to add an accelerator board containing a 68030 (or higher) processor. There are quite a few alternatives including the Magnum 030/40, Viper MkII-50 and the Blizzard 1230-IV. Prices vary according to source and options chosen, but you generally won't get much change from a couple of hundred quid. Take a look at the accelerators Supertest in Amiga Shopper issue 64 before you decide!

Paul

ObjEdit Errors

Coding

I'd like to use some simple sprites and Bobs in my Hisoft Basic 2 programs, but it seems as though the ObjEdit utility supplied with the package doesn't work correctly with OS3 on my A1200. As soon as I start using the program a 'Run time Error 5 in module BLIT' appears.

Jiro Narita
Mexico

As far as I'm aware the ObjEdit program is actually the same one that was supplied with the original Amiga Basic (and presumably written while Workbench 1.3 was still hot news). I get the same error message on my A4000 as well but, not being privy to the code, have no idea where the problem lies. Hisoft tell me that they're going to look into it and get back to me when they've fixed the problem (hopefully before the next issue). Just as soon as I get the necessary details I'll post them here in the Question/Answer section. So don't worry, your question is being dealt with!

Paul

Dynamic Module Recognition

Coding

I'm using Dice C and would like to write a program which uses external modules placed in a special drawer. The idea is that the program should be able to scan this drawer and use only the necessary external functions or variables. When a new module is added, the program should use it without needing to be recompiled. How can I do it?

Jakub Jablonski
Poland

You've not provided any details of the things that either your program or your external modules would be doing, so all I can really do is try to offer some general help. However, first we need some kind of specific example (so that everyone else can see what's going on). Let's say you were writing a program whose job was to sort data files using various sorting methods and had written modules for performing bubble and Shell sorts. When your main program was run it would look at the available modules and provide a 'Sort' menu that had Bubble Sort and Shell Sort in it. The user would select a method, identify the name/location of the file to be sorted and specify a destination filename, and the program would then pass this information to the appropriate sort module for processing. If at a later time you wrote a tree sort module, then by simply placing this module in your chosen drawer the main controlling program would recognise the existence of the new module and thereafter display three items in its Sort menu.

The key factor is that although these modules will contain executable code there must be no re-compiling or re-linking of the main program. Now in many cases the easiest solution is to have the 'modules' written as separate programs, and if you do this you then need a way of transferring information between your main controlling program and the modules. You could, for example, use the dos library's Execute() function to perform the AmigaDOS Run command, passing the necessary parameters to your module as part of the command line string which is set up by the controller program.

Alternatively, the modules could be written as individual run-time libraries which all use a set of standardised functions – this would probably be the method most developers would use. With the hypothetical sort program I used for the example we might choose to have SetSourceName(), SetDestName() and Sort() functions present in each library. Although these calls would be hard coded in the program, the sort method itself would change depending on which library had been opened.

This approach only works if the parameters and return values of the functions of all modules can be standardised but, if you can get a system like this in place, your difficulties essentially reduce to those of locating files. Identifying files in a selected directory is easy enough and with Dice C you could, for instance, use the UNIX style functions dir(), readdir() etc., to read entries from a directory. Using a logical assignment, eg. MODULES:, in your code and including a suitable assign statement in your startup script would help avoid any hard-coded dependence of the program on the physical directory being used.

Paul

Listing 1

```
NULL EQU 0
LF   EQU 10

XDEF _main
XREF _printf

_main move.l #$20,d0        just load an example number (decimal 32) into d0
      move.l d0,-(sp)       store number on stack
      pea    format         store format string on stack
      jsr    printf         print the number
      addq.l #8,sp          adjust stack pointer
      rts

format dc.b'%ld',LF,NULL
```

Listing 1: This source code will print the number 32, ie 20 hex!

Decimal Numbers

Coding

I'm writing a small program in assembly language which needs to display numbers on my Amiga screen. How can I get whole number results stored in a 680x0 register displayed in Base 10 (i.e. ordinary decimal) form?

No name supplied

From the example you sent you're fairly new to 680x0 coding and want program output to appear at the Shell window which the program runs from. The amiga.lib linker library contains a printf() function that will do this job and the

only fly in the ointment is that the routine expects parameters to be passed C style, i.e. on the stack. Chances are you haven't come across this sort of coding yet, so I'll try to explain briefly what has to be done.

The amiga.lib printf() function allows you to display numbers and text in various formats and, from C, a function call for printing a single number in decimal form would look like this:

```
printf("%ld", x);
```

where "%ld" is a formatting string which tells the printf() function that it should print the longword based number in just ordinary decimal form.

From assembler exactly the same info has to be provided, so both a format string and the number to be printed need to be specified. We start by using move.l and pea instructions to place the number to be printed and a pointer to the format string on to the stack (the format string can be defined using a dc.b statement). Having done that a jsr instruction is used to call the printf() function, and after this the stack pointer modified so that the parameters are effectively removed from the stack!

Because the real code for the printf() function is in the amiga.lib library we have to link the program with this library in order to produce a runable program. This means that during assembly it is necessary to ask the assembler to produce linkable code, and with Devpac this is done from the Assembler Settings menu option. You'll need to link a standard startup module to your code as well because this will ensure that a properly set up stdout output handle exists for printf() to deliver its output to!

Basically the command line that you'll type to link your code should look something like this one:

```
blink astartup.obj myprog.o to myprog
library     amiga.lib
```

Needless to say suitable file names and paths need to be added which are appropriate for your system (so that the linker finds the files that you specify) but, providing you don't get any error messages, you'll then be able to run the resulting program by typing its name at the Shell. Listing 1 shows how the function is used, and although short you can actually assemble, link, and run this code.

Paul

ATAPI Days


Hardware

I am planning to add a CD-ROM drive to my Amiga 1200. At the moment I think that I am going to go for an ATAPI device over and above a SCSI one. I am planning to mount the CD drive in a PC mini tower or desktop case.

1. Would the ATAPI software or my Amiga's IDE port be able to handle six or eight-speed drives, or would I be better off with a quad-speed model?

2. Which drive would you recommend?

3. I have heard that the lead to the case should be short, but I need a lead of at least 35cm, preferably 60cm and maybe a maximum of 90cm. Are these leads suitable?

4. If I cannot use leads this long would the CD-ROM drive be okay sitting next to my Amiga without a case?

David Simmons
Herts

*1. Even an eight-speed CD-ROM drive transfers data at (150 * 8) = 1200 which is about 1.2Mb a second. With extra memory, the Amiga's IDE port can happily work at this speed, so there shouldn't be a problem. However, do you think you really need an eight-speed CD-ROM drive? I get along perfectly happily with a double-speed mechanism, and I'm honestly not convinced that anything else is worth the money.*
2. There is a full list of drives in the July issue of Amiga Format (issue 86), but the Sony CDU-55E and Mitsumi FX400-B1 are both bargains at less than £50.
3. Yes, it's true – IDE leads should be as short as possible. Unlike SCSI, IDE was not intended to be used as a way of connecting external drives. Stick to as short a lead as possible, although 35cm should be all right. It depends on the quality of the cables and the drives themselves. I wouldn't be happy with a lead which was any longer and you probably can't buy one anyway.
4. Most CD-ROM drives come with enclosed

Fill in and get answers to your questions AS66

If you send in a question for the Amiga Answers experts, please fill in and include the form below (or a photocopy if you don't want to cut up your magazine). If you have several questions in different fields that should be addressed to more than one of our experts, please send in your queries on separate forms.

Send your form and question to: Amiga Answers, Amiga Shopper, 30 Monmouth Street, Bath, Avon BA1 2BW.

Name: ____________

Address: ____________

____________ **Post code** ____________

Your machine:

☐ **A500** ☐ **A500 Plus** ☐ **A600** ☐ **A1000**
☐ **A1200** ☐ **A1500** ☐ **A2000** ☐ **A3000**
☐ **A4000**

Approximate age of machine: ____________

Kickstart version (displayed at the "insert Workbench" prompt)

☐ **1.2** ☐ **1.3** ☐ **2.x** ☐ **3.x**

Workbench revision (written on the Workbench disk)

☐ **1.2** ☐ **1.3** ☐ **1.3.2** ☐ **2.04/2.05**
☐ **2.1** ☐ **3.0**

PCB revision (if known). Do not take your machine apart just to look for this! ____________

Total memory fitted (see AVAIL in Shell for Workbench 1.3) ______

Chip memory available (see AVAIL in Shell) ____________

Agnus chip (if known) ____________

Extra drive #1 (3.5in/5.25in) as DF : Manufacturer ____________

Extra drive #2 (3.5in/5.25in) as DF : Manufacturer ____________

Hard disk: ____________**Mb as DH**____________**:**

Manufacturer ____________

Extra RAM fitted – type, size in Mb and manufacturer ________

Please indicate details of any other hardware which could help us to answer your question:

____

Now, use this space to describe your problem, including as much relevant information as possible. Please continue on a separate sheet if necessary.

____

cases (so that you don't blind yourself on the laser or some other important European safety directive), so they'll sit quite happily next to your Amiga.

Drive bother

Hardware

I have a Connor internal hard drive and a Seagate 120Mb drive, which I want to mount externally because I have to run a program to read the Seagate drive before any hard drive icons appear on the Workbench. Can you tell me what hardware I will need, and how to set the Seagate to slave and the Connor to master?

Dave Stone
Somerset

What you are saying doesn't quite make sense: why would you need to run a program before Workbench icons appear? And how does this force you to use an external drive? Any drive can be accessed before Workbench loads simply by using the user-startup sequence – only after this script has been executed does the Workbench get loaded.

As for connecting both drives, unfortunately you neglected to mention the size of the drives. If one or both are 2.5" drives, then you are unlikely to get them working at once. If both are 3.5" drives then yes, it is possible. However, it's not recommended because there is a chance of overloading the internal IDE interface, and probably the power supply as well. You will need to know the exact model of the drives in order to determine the jumper settings: if you are lucky you'll find the details in the little booklets which new drives come supplied with. If not try the SeaGate BBS ☎ 0162 847 8011.



How to send and receive binary files via e-mail

Nick Veitch *looks at how to use MIME software to transmit and receive binary files such as images or LHa archives using an ordinary e-mail system.*

E-mail is all very well and good. Hurrah! We can all send messages to each other. Well, yes. But unfortunately, that's all it's good at.

The biggest problem with doing this is that the whole Internet e-mail system was only ever designed to handle 7-bit data. Although this is perfectly adequate for ASCII text files, almost all other file formats such as graphics, executable programs and just about every other file you are ever going to want to use contain 8-bit data.

Bit of a bummer, then. Fortunately, there are ways around this. If e-mail is jolly good at sending and receiving ASCII text, then all you have to do is translate your data into text files. Problem solved.

There are some PD programs on the Amiga, and indeed just about every other computer system in the universe, which do just that. There are a number of implementations of this system, and you should quite easily be able to find one on an Amiga-specific BBS, or from any of the Aminet mirrors on the Internet itself.

UUENCODE/UUDECODE has its roots in the Unix operating system, and the syntax used by most of the implementations reflects this. Suppose you have a graphics file that you want to UUENCODE called "picture.gif", then the general format of the command to encode this would be:

UUENCODE > PICTURE.UUE PICTURE.GIF PICTURE.GIF.

The first part of this tells UUENCODE to direct its output to the file "PICTURE.UUE". This ".UUE" extension is only a pseudo-standard and you can ignore it if you want to. The parameter "PICTURE.GIF" is included twice – first to actually specify the name of the file to be encoded and secondly to specify what the file will be called once it is decoded again. You can specify a different unencoded name if you want.

Now, because the resultant file is simply a huge block of ASCII text characters, you can simply include it in the body of an e-mail message. You will see that the file includes a header showing how long the text is, so the UUDecoding software knows what to do with it.

At the other end the recipient simply types

UUDECODE filename

This will take the 7-bit information encoded as text in the e-mail message and reconstruct the original file in the correct format.

Although UUENCODE/UUDECODE is a fairly straightforward and easy to use system, it isn't what you might call user friendly. A much more flexible system, which is also more intuitive to use, is called MIME or Multi-purpose Internet Mail Extensions.

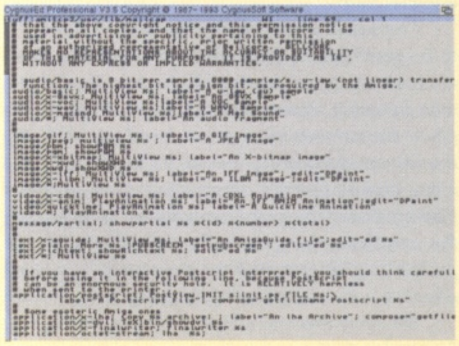
MIME is an open-systems standard (it doesn't depend on a specific platform or computer) for the exchange of text and non-text e-mail. A message encoded using MIME consists of a series of data objects known as 'partial'. Each of these 'partials' contains a data header which identifies the type of data encoded. The actual data itself, known as the 'body', can either be encoded directly after the header, or 'attached' to the message. In this case it's referred to as an 'external part'.

On the Amiga, the only really useful implementation of MIME is the mail program Metatool. This functions in a similar way to most implementations of MIME on other platforms.

Incoming MIME documents are handled according to the instructions found in the configuration file 'mailcap'. This is simply a table of filetypes and their associated applications. For example, the line in Mailcap which handles IFF data would probably look like this:

image/iff; MultiView %s; label= "An IFF Image"

This line instructs MetaTool to invoke the workbench Multiview program whenever an IFF image is found. The standard types included with the software cover the more usual data types such as GIF and JPEG for images, and IFFs and SVXs for audio files. It is also possible to define your own data types and have them invoke whatever programs you like.



An example of the Metatool mailcap file. You could even invoke ARexx scripts to deal with some file types if you really wanted to.

The file which handles the types of outgoing MIME partials that you can send is called meta.types, and again this is a look-up table. This time it works in reverse, and when you attempt to add a certain file to a message in MetaTool, this file is used to identify the type of data contained in it. Thus the line:

image/jpeg jfif jpg jpeg j

tells MetaTool that files ending in any of the extensions jfif, jpg, jpeg or j are to be encoded as JPEG partials. Adding a new datatype really is as simple as editing this file and then adding a new line.

Remember, however, that the person to whom you are sending the message needs to have equivalents of any new data types that you add in their mailcap file, otherwise their MIME system simply won't understand how to interpret the message.

Actually using MetaTool to send a MIME message couldn't be simpler, because it operates on a drag and drop principle. You still have to use the keyboard to enter mundane data such as who the message is for, but then you simply drag the partials on to the MetaTool window. The meta.types file is used to identify the types of data being added, but you can always override the automatically identified data type. Alternatively, you can use a standard file requestor to select which files you wish to include in your MIME encoded message. What could be simpler? ■

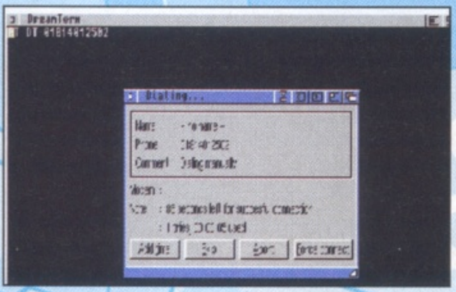
Choice Domain

From some really useful utilities, through to some slightly suspect clipart, Steve Liddle searches the world of Public Domain programs to bring you the best and worst of what's available.

This issue's Public Domain section's got something for everyone. With five star buys on offer, whether you want artwork or animation, image editing or music software, read on...

DreamTerm

This is one of those programs that was created by the author to satisfy his own needs, as opposed to a direct attempt at flogging some software. This sort of thing quite often means unfriendly software, but happily, not in this case. DreamTerm is a freeware terminal program that allows anyone with an Amiga, modem and telephone to connect to a bulletin board. The terminal program acts as an interface, so you can send and receive data with the computer at the other end of the phone. There are quite a few similar terminal programs about, including JRComm and Term, both which are very good. So why choose DreamTerm over the others? Well, in its favour it has ease of use, it's extremely configurable, it uses MUI, it's fast, it's free of charge and is actively supported by the author. On the bad side DreamTerm doesn't support scripts, you will need Kickstart 3.0 and MUI V3.3 or better and there are quite a few bugs crawling about. By the author's own admission, the program needs a bit of a polishing up in some departments, but it's still definitely worth a look.



Check out those bulletin boards with Dream Term, a new freeware terminal.

Verdict: 86%

Peanuts Clipart

This, as if you couldn't guess, is a disk full of clipart. More precisely, it's a disk full of Peanuts related clipart. When we say Peanuts, we're not talking the pre-shelled, ready salted kind, we're talking the comic strip type. The disk contains around 40 IFF pictures of Charlie, Snoopy, Linus and the rest of the gang. The quality of the scans is very average and unless you use a very high resolution screen on your TV or monitor, the pictures come out at an enormous size.

Professional DTP's won't need this kind of clipart, so that leaves your average punter with their TV or cheap monitor and a lot of hassle, converting the images to a sensible size. The disk itself is badly set up too. Every picture has an icon, which takes up a lot of disk space, each defaulting to 'DPaint1V' in the root directory, something that is unlikely to be in any system. If you are going to put icons on a clipart disk, why not link them to a simple picture viewer like PPShow? That way people can quickly look at the images instead of having to load up Dpaint and wrestle with the file requester every time. Also, in the Readme file on the disk, the author says the pictures are not copyright, I must confess to being a bit confused on that point. Overall then, you're only likely to get a buzz out of this disk if you're a big fan of Charlie & Co.

Verdict: 55%

Who, what, where, when, why, how...

Product	No of disks	Type of product	Price	Supplier	Contact	Verdict	Page
DreamTerm	1	Comms Terminal	0.75	OnLine PD	01704-834335	86%	43
Peanuts	1	Clipart	0.75	OnLine PD	01704-834335	55%	43
JamJam	1	Demo	0.75	OnLine PD	01704-834335	78%	44
Devious Tools #40	1	Compilation	0.75	OnLine PD	01704-834335	85%	44
Spectrum Guide	1	Help	1.50	KEW=II PD	0181-6571617	93%	44
Transfiguration	1	Image processor	1.45	Angel PD	01733-262621	75%	44
Illusions Issue 3	2	Slideshow	3.50	SeaSoft Computing	01903-850378	70%	44
Vark #13	1	Compilation	0.95	Roberta Smith DTP	0181-4551626	91%	44
Airhorn	1	Animation	0.95	Roberta Smith DTP	0181-4551626	76%	44
Helping Hands	1	Compilation	0.95	Roberta Smith DTP	0181-4551626	85%	45
For Mice & Mem	1	Compilation	0.95	Roberta Smith DTP	0181-4551626	88%	45
Arrow Superutils	1	Compilation	0.99	Arrow PD PO Box 7,Dover.Kent.CT15-4AP		88%	45
Grafix	2	Art Tutor	6.99	F1 Licenceware	01392-493580	90%	46
LottoBase	1	Lottery predictor	3.99	F1 Licenceware	01392-493580	70%	46
Guitar Fret Mstr	1	Guitar Tutor	3.99	F1 Licenceware	01392-493580	88%	46
Grac User Disk #1	1	Grac help	3.99	F1 Licenceware	01392-493580	85%	46
Wordplay	99k	Anagram creator	n/a	Aminet/text/misc/powerplay.lha		93%	45
Viewtable	35k	ASCII util	n/a	Aminet/text/show/viewtable.lha		89%	45
RSIBreak	12k	Commodity	n/a	Aminet/util/misc/rsibreak.lha		87%	45
Multihelp	42k	Commodity	n/a	Aminet/util/wb/multihelp11.lha		92%	45

44

JamJam Demo

Here we have an AGA demo which requires a full four Mb of memory. The demo is archived, but an easy to use installer is supplied, with tips on running this On Line PD demo – very commendable. JamJam though, I am sorry to say, offers absolutely nothing new or breathtaking in the demo stakes, though it is, in its own right a nice demo. You get the usual swirling colours, picture cube, scrolling texturised pictures, fractal landscapes and the obligatory vector object, and that is about it. The demo only lasts a minute or two but is worth at least one look. Having said, all that I only wish I had a smidgen of the coding talent these guys possess. Ho-hum.

Verdict: 78%

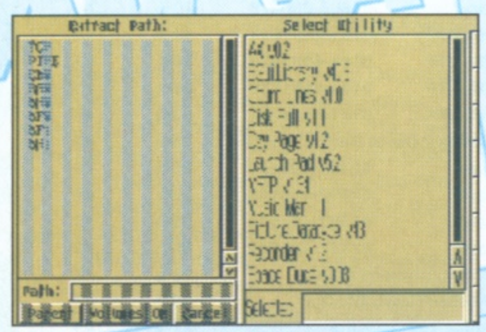
Spectrum Guide V1.3

Now here is something different and possibly useful. This disk contains a rather large AmigaGuide file containing the brief instructions to over 150 Spectrum games. The author is a big fan of the Spectrum emulator and collects all the 'snapshots' he can get hold of to run on it. The only problem with this hobby is that unless you have the original manual to some games, it can be quite impossible to play them properly – hence the Spectrum Guide. Alex Hopson, the author, has done a great job compiling this guide, and he even offers free snapshots to anyone supplying disks and postage. So, there are still some non-money grabbing-types out there after all! Also on the disk is a humungous list of Pokes (cheats) for over 600 Speccy games, making it excellent value. Apart from the dodgy copyright problems, it's a thumbs up for the Spectrum Guide and a hearty slap on the back for Alex. This disk is essential to all Speccy emulator freaks.

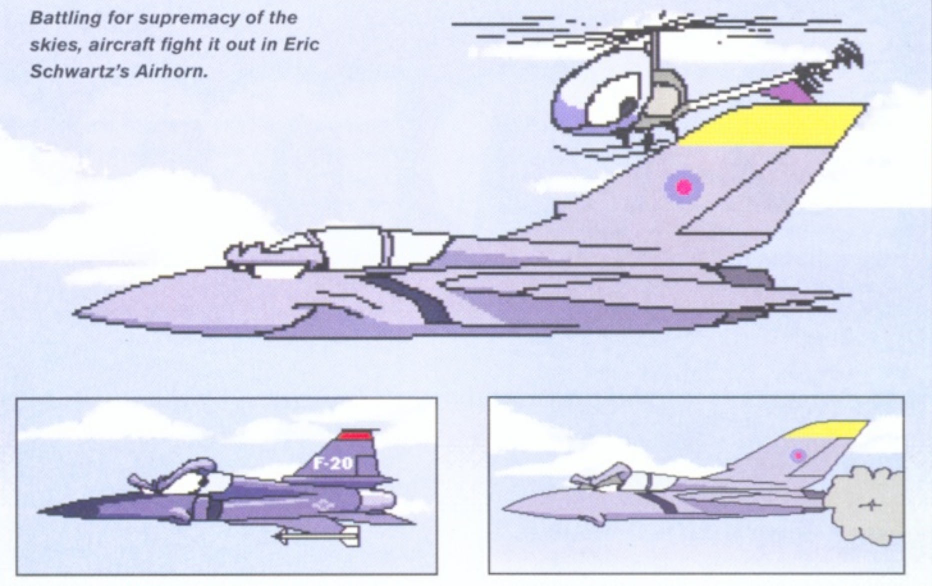
Verdict: 92% Star buy

Devious Tools #40

This is a compilation disk of utilities from Australia. The front end is very nice and easy to use. It allows you to see descriptions of each program and do a file list of each archive on the disk, as well as extracting the archives to any destination, so it's great for people not too conversant with LZX. There are nine utilities on offer here and they have all done the rounds



Devious Tools is a collection of nine archived utilities from Down Under.



Battling for supremacy of the skies, aircraft fight it out in Eric Schwartz's Airhorn.

recently. You can see the file names in the picture – it's nice to get a friendly, good looking front end on this type of disk for once.

Verdict: 85%

Transfiguration

This image processor is an attempt by the author to create a cheap program that doesn't require much memory – unlike the weightier ImageFX. The program itself is very easy to use and the menu is clear and precise – you won't need to read the docs to use Transfiguration, which is a good start to any program. There are quite a few options available to operate on your pictures, including Pixelize, Oils, Negative, Sphere Map, Fold, Mirror, Brighten, Explode and Flip. Now the bad news. Transfiguration is written using Amos Pro which means no support for AGA pictures – pretty darn essential for an image processor. (What's wrong with the AGA extension?) The software's a fair bit slower than your average IP and it only supports loading and saving in Amiga IFF format which is another massive omission. This explains why the program can be run in low memory – its lack of features. The program may fill a gap in a niche market, where people with low-end Amiga's who only use IFF of less than 256-colour pictures might find it useful, particularly since it's the full version and totally free. Overall, a good effort, but written in the wrong language.

Verdict: 75%

Illusions Issue #3

This slideshow comprises of 12 pictures on two disks. The subjects covered are mainly Sci-Fi (i.e. Star Trek) and fantasy, with some conventional drawings too. I counted four superb pictures and feel the rest are quite average. The disks use a trackloader, so unless you're a hacker, you can't get at the picture files and load them into your paint package or image processor. To top that, the art is copyrighted so you can't do anything with these pictures apart from look at them. I can't see the point of these disks; you would presume they were an advert for the artists' talent, but only one artist gives a contact number! If you collect slideshows, maybe this is okay, otherwise save your money.

Verdict: 70%

Vark #13

There are many utility compilations around, but most of them lack the three essential ingredients. The best ones, however, contain the latest utilities, as well as surprise utilities you've never come across before and they fill the disk up. LSD did it with their LSD Tools compilations and now Vark looks set for similar stardom. Vark's 13th disk contains 20 utils and most of them are good, or at the very least, interesting. The highlights of the disk are Zappo WB which allows you to boot your Zappo CD-drive direct from the Workbench, PointerX, which makes the hands on the mouse busy clock spin – totally pointless, but nice to see and Zip Tool, which enables you to write protect your Zip drive. WRip allows you to steal files off all sorts of disks – naughty but nice – and MUI_ASF undelete provides you with a GUI version of the Amifilesafe undelete function. Other utilities include a cheat for Tower Assault, a converter that turns AmigaGuide documents into text, a lottery number generator, a new version of the Workbench Version command, EasyAmiTcp, and bootblock installer. There's something of interest to everyone on this disk.

Verdict: 91% Star buy

Airhorn

This is a short animation from the apparently undisputed king of anims, Eric Schwartz. Lasting one minute 40 seconds, the animation consists of three jet planes nudging each other out the way for air supremacy. Of course it's a bit humourous, but after one or two viewings this disk will be relegated to the back of the drawer.

That said, the sound effects and graphics are pleasing enough and Eric is, of course, bound by the constraints of what he can fit on a floppy disk. This one's for Eric fans and animation collectors only.

Verdict: 76%

Helping Hands

This disk is a compilation of technical files and hardware modification documents. Some are ancient, but most are either useful or interesting. There is info on how to install hard drives, a hardware hack to solve the new A1200 disk drive problem (but which voids your warranty) and a hardware virus checker. There are technical docs on how floppy disks work, alongside a glossary of Amiga terms and lots of other stuff, including instructions for building a sound sampler or MIDI interface and converting a PC mouse for use on your Amiga. As I said, it's all quite old, but it makes a worthy collection.

Verdict: 85%

For Mice And Mem

Mice and Mem is a very imaginative and amusing title for a compilation disk of mouse and memory utilities. There are 16 programs on offer here, ranging from memory monitors to mouse accelerators. A few of the more interesting programs on the disk include, PortSwitch, which enables you to use mouse emulation with your A1200 keyboard – handy if your mouse dies. MidMoose enables you to use the middle mouse button if you own a three button mouse, Showman lets you 'see' your memory and Memeater, written for developers, enables you to test low memory situations.

Verdict: 88%

Arrow Super Utils V1

This is yet another compilation disk of utilities and it's an in-house effort from a fairly new PD library called Arrow PD. There are eight programs on here, including CDXSizer, which enables you to re-size windows by clicking on their borders, De-Installer, which helps to uninstall programs you no longer want on your hard drive and Disk Squeeze, which is useful for floppy archival purposes.

FastView enables you to view many different types of picture file (fast!), MUIJoin, enables you to cut up files and rejoin them at a later date and RamIcon, replaces your boring default Disk icon with a trendy new image.

UCDBackup, is a rather clever hard drive backup system and last, but by no means least, there's XToolBox, a hard drive menu system with some lovely features.

All the programs come with their original documentation and installers, which makes a very nice change and on top of that, the disk is 99% full. In conclusion then, a very well put together compilation.

Verdict: 92%

Aminet Choice

Wordplay v. 7.20

This excellent freeware program was ported to the Amiga by a nice chap called Jonathan Fuerth. It originates from the PC and was written in strict Ansi C, which makes porting programs extremely easy (apparently). Wordplay is an Anagram finder. It finds words derived from other words, using the same letters in a different order, but while constructing valid new words. For example 'tan' is an anagram of 'ant'. The program is Cli only, but that doesn't make it difficult to use, just open a shell on your Workbench and 'CD' to the path where you have Wordplay stored, 'CD Ram:' for example. Then all you do is type 'Wordplay', followed by a space and the word or words you want to search. For example, to search 'Amiga Shopper' you would type: 'Wordplay amigashopper' notice there is no space between the search words. Wordplay will then print out loads of anagrams to your screen, a printer or to a text file. There are many options available via Cli switches, so you can tailor the program to do all sorts of useful things like setting the minimum and maximum length of each anagram, deciding whether to use vowels or not or specify a word which should appear in all anagrams. You can even direct Wordplay to use another dictionary file other than the one supplied (which is reasonably large) This is a neat program and should give hours of fun to those who enjoy turning famous peoples names into rude and amusing anagrams. It could also prove useful for solving or creating crossword clues, as for competitions and playing puzzle games. Very highly recommended. By the way, Wordplay returned 11,316 possible anagrams from 'amigashopper' in default mode, and came up some quite unprintable combinations!

Verdict: 93% Star buy

Viewtable V1.0

This utility can be quite handy for programmers who do not have an ASCII code chart to hand. Simply type in a decimal/hex/binary or ASCII value and everything you will need to know about that character or key is given. No great shakes really, but you can also find out the codes to 'invisible' keys such as the function keys, help, delete, escape, tab and the cursor keys. I can remember many times scrambling around for an ASCII chart in my wild youth, but there's no need to fear that now. The program is German, but you won't notice the language barrier, since the simple GUI makes Viewtable very easy to use.

VERDICT: 89%

RSIBreak util/misc/rsibreak.lha 12k

Repetitive strain injury (RSI) is no joke when it happens to you. It's very easy to forget how long you have been typing in text, or worse, staring unblinking at the screen reading text – just like staring at a light bulb and certainly no better for your eyes. Then there is the risk of injuries to yours wrists, fingers and let's not forget your





Take a look at some interesting artwork on Illusions Issue #3.

spine, when you are hunched over the keyboard for hours. RSIBreak is a small commodity that just consists of a simple timer which reminds you to take a break at regular intervals by flashing the screen. A second level warning blanks your screen and tells you to get up and walk around until the break is over. RSIBreak is easy to install, just copy it into your WBStartup drawer and it will be run every time you boot Workbench. Using RSIBreak's icon Tooltypes you can adjust the time between each warning and the length of warning. As the author says, 'the PC and Mac have loads of RSI warners, so why not the Amiga?' Why not indeed?

Verdict: 87%

Multihelp V1.1

MultiHelp is a useful and powerful commodity. It enables you to assign Hotkeys to the Amigaguide or doc associated with any Workbench program. This means, in effect, that you can force any

The PD directory

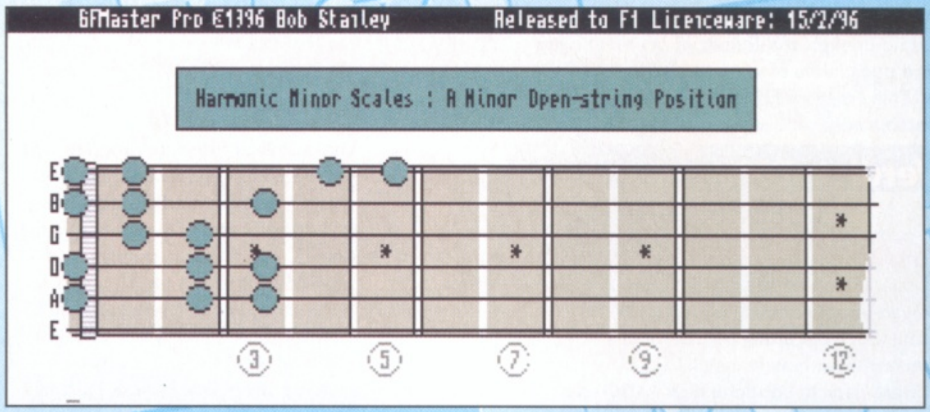
On the disk

More details of names and addresses of PD companies, and how to get hold of PD software can be found in the PD Directory on the Coverdisk. It used to be printed within the magazine, but had to be in very small text because of the amount of information it contained. To solve this, we have updated and recompiled the list and put it on our Coverdisk as a text file in the InformationZone.

The InformationZone contains both the PD Directory and the list of User Groups (which also used to be in the issue). They are both in two formats, AmigaGuide and ASCII. The AmigaGuide enables you to point and click your way to the information, making it much easier to find the details you require. Read the ReadMe file for more information. **See page 10 for details.**

Workbench program to supply on-line-help. Multihelp is easy to use, just double click on the Multihelp icon and a requester will enable you to select an AmigaGuide or ASCII doc file and you then type in the key that you will use as the hotkey. Next time you run the associated program, a press of the hotkey will result in the AmigaGuide or doc file loading and displaying. Multihelp requires Workbench 2 or higher. A handy little program that you should find well worth checking out.

Verdict: 91% Star buy



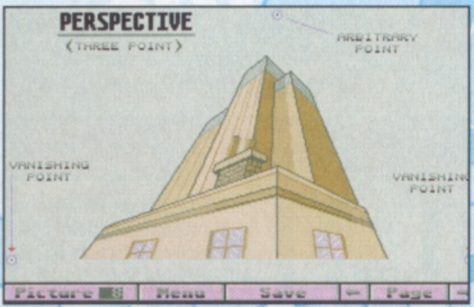
Whether you're just starting or you're polishing up your scales, try out Guitar Fret Master Pro.

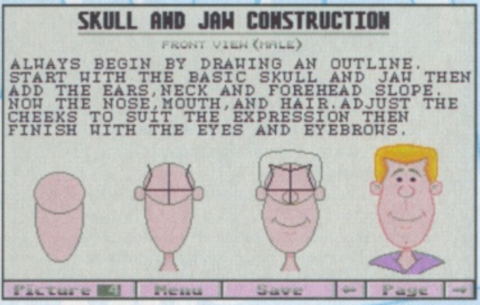
Licenceware Choice

Grafix

Apart from the dubious spelling, this is a rather good attempt to teach utter no-talents such as myself to draw. Apparently Grafix was a commercial release on the Atari ST (is that a good or bad thing?) and it did quite well. Now F1 Licenceware have snapped up the rights to the Amiga version and supplied a 40 page A5 manual to go with the two disks, hence the price of £6.99. The tutor itself is a very basic menu program, where you click on individual lessons such as how to draw human heads, facial features, animals, perspective, logo's, landscapes and – more impressively – animations which you can see in action. A nice touch is enables you to save out the tutorial graphics to load into your art package and mess about with later. Most of the graphics are very professional and I did learn quite a few tricks from this guide – well I can draw a straight line now! This is one for all the family.

Verdict: 90% Star buy





Two left thumbs when it comes to drawing? Maybe you need help from Grafix.

LottoBase

'Oh no!' Everybody cries. 'Not another lottery predictor.' Yes, I am afraid it is. LottoBase is Licenceware so it should be good, but is it? LottoBase contains the lottery numbers of the first 66 weeks of the Lottery, so you'll need to input 20+ weeks worth to catch up, hmm. On loading, the program greets you with a simplistic menu – select 'Hot numbers' and the software tells you the six most common numbers to appear so far, 'Cold Numbers' tells you the least common numbers, 'Mix' combines the two and there's also the usual 'Random' feature. As a plus, on this screen you can view all the lottery data in a rather neat graph format. So far so good. On the next menu you can edit the data. This is where you can input new draw numbers each week and edit out any mistakes you've made. There is also a built in Help file and that's your lot. Lottobase works and is very simple to use. It's nothing special and I think I've seen better as shareware. At nearly £4 for the disk, you will have to think about whether this program is of any use to you.

Verdict: 70%

Guitar Fret Master Pro

I dabbled with guitars years ago (I think most people have a go at it sometime or another), but never got very far. Needless to say, I don't have a guitar at hand to test this program properly, so will just tell you what it has to offer. GFMP is a Guitar Scales Tutor. It displays where you should place your fingers for any given chord and also plays the sound. It contains 141 scales/runs and is aimed at guitar beginners. There is plenty of documentation and help, the front-end is nicely set up and the menu system is very easy to use. Also, as a bonus, you get an AmigaGuide file called 'The Guitar' which includes both a brief history of the guitar and how to tune a guitar. It makes quite interesting reading. There are some nice extra touches in this program such as loads of exercises where you can try to play along with the program while it displays the finger positions you should be using, accompanied with sound. It also provides you with the ability to save the screen as an IFF file and to print the screen. The author even goes as far as trying to teach you the basics of tabulature in the documentation too.

There's also a collection of 120 arpeggio's in both ASCII and Music2Tab format. Music2Tab is another Guitar util from F1 and they also offer Guitar Chord Directory (by the same author as GFMP). This program looks like it could be very useful to guitar beginners and there are not many programs of this type about.

Verdict: 88%

Grac User Disk

According to F1, The Graphical Adventure Creator has been a storming success, no doubt, as it's the only program of its kind (apparently). It's a very powerful program which enables non-programmers to create Monkey Island-style adventure games with all the trimmings, and in the right hands has produced some excellent games. However, it's been purchased largely by non-programmers, so there has been the inevitable deluge of questions targeted at F1 and the programmer. Hence the release of this user disk which contains tutorials, help, hints, some graphics, a small example game and a new version of the Grac Player. This disk applies to both V1.1 and V2 of Grac so if you're stuck or just need some general guidance this disk could help you. ■

Verdict: 85%

PD submissions

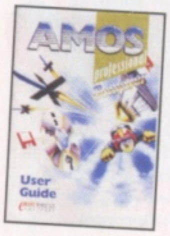
If you have some exciting PD disks that you would like to be considered for review in Domain Choice, send them in to Amiga Shopper, Future Publishing, 30 Monmouth Street, Bath BA1 2BW, clearly marked as a PD submission. We welcome any type of disk, except games.

If you are a PD house, make sure you include all the information necessary, such as how to contact you, how much the disks cost and how people can pay. If you are the author of the program, state where people can get your program from, and whether you would like us to consider it for inclusion on a future ShopperChoice Coverdisk.

Information about new PD houses or PD authors is accepted for inclusion in the PD directory (see box on page 43 for further details).

Mail order

AMOS Pro Compiler 2



Speed up your AMOS programming with the AMOS Pro Compiler 2 from Europress, which F1 Licenceware have re-released for a limited period. If you want to know more about the program, we ran a review of it in the April 1996 issue, where we gave it a respectable 87 per cent.

Description	AMOS Pro Compiler 2
AS price	£14.99
Order code	AS/AM/1
Special subscribers price	£13.99

Mini Office



A collection of database, spreadsheet, graphics and word processor programs from Europress that you shouldn't be without. It can be especially useful if you are planning to set up a small business.

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Order code	Mega Mouse 2 AFMM02
Order code	Scanning pad AFSP02

Turbotech Clock Cartridge



Your Amiga will always know what day it is with this handy device – even when it's switched off! Once the software is installed, boot up and the time and date are already set. Fits into the disk drive port (or on the back of your second drive).

Description	Turbotech Clock Cartridge
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The Amiga is the ultimate multimedia machine but do you know how to get the most out of it? Graeme Sandiford has all the information you need in our extensive feature. Reviews of the Surf Squirrel, Photogenics 2 and XiPaint 4 as well as all the usual tutorials and regulars. Don't miss out on this issue.



Issue 64

Every accelerator available for the A1200 is tested and rated in our extensive feature. We review the latest version of OctaMED, the Jaz drive and the special edition of Wordworth. And this issue sees the return of Amos. Steve Bye begins by helping you to write a complete utility. £5



Issue 63

Our experts give you the lowdown on both 2D and 3D animation and take you, step-by-step, through creating credible animations as well as rating all the software. There's also a guide to DTV and the Amiga for all levels. The Coverdisks have a usable version of Wordworth 5 and much more. £5

Amiga Shopper reader offer order form — AMS66

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CanDo part 3



Part three of the multimedia database tutorial, and now we can add fields and decide on the data which is stored. ***John Kennedy*** *tells all.*



Creating the database was relatively simple, because CanDo has a lot of functions built-in which are designed especially for this purpose. In fact, all we have to do is select the type of item which we need stored.

This month, we'll endeavour to create a text-field which stores the name of a sound sample. Then when you click on a nearby button, the sound sample will be played.

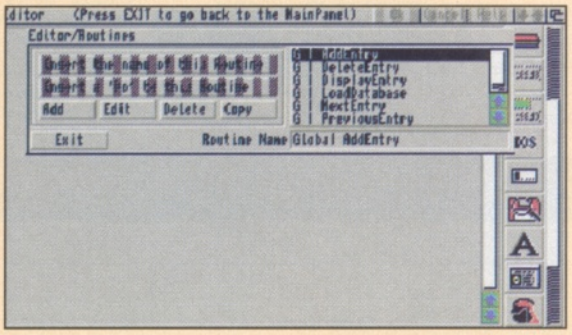
Imagine using this as a basis for a record collection database, in which you can store the name of all your favourite records and also include a short sample from each.

We'll deal with different types of file later. Firstly, let's see how it is possible to add some fields into each record of the database. We'll need to take the routines we pinched from a tutorial file last month, and assign them to the various buttons. In other words, when the user clicks on the button the routine is called.

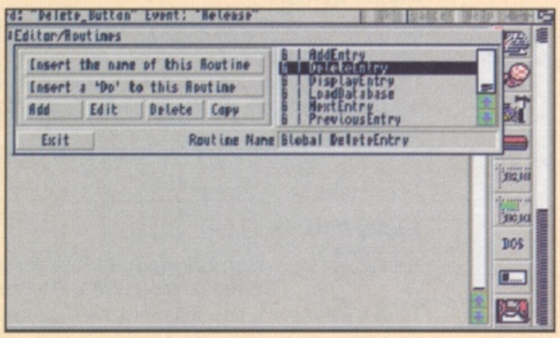
By the way, it is very important to remember that you don't change the name of the routines when you are transferring them between decks.

Next we'll define some fields, then add some scripting routines which can deal with the elements in the database and process them as necessary. ■

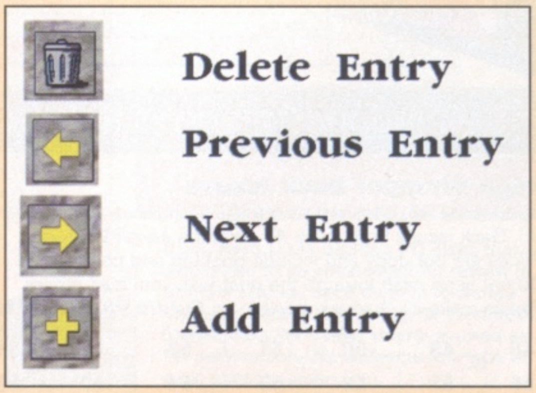
Assigning routines



1. Last month you should have loaded the example deck called "DBBasedeck" and saved all its routines. These could then be loaded into our own graphically stunning deck.

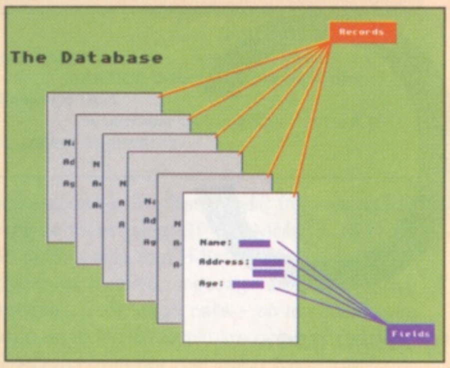


2. Now we need to assign the routines to the various buttons. This isn't so hard to do: for example, edit the Trashcan button, and select the Release script. Now use the Special menu entry Routines, highlight the DeleteEntry script and insert a "Do to this routine".

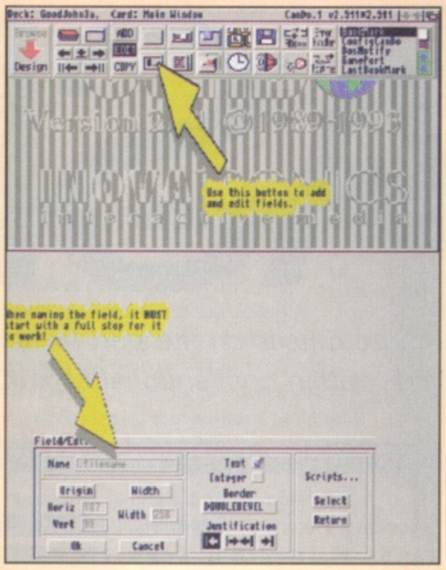


3. You should continue this process, assigning the following routines to the relevant buttons. You should have a few routines left over, but we can deal with those later.

Adding fields



4. Now we need to define what information is to be stored. At the moment we have a database framework which can load and select various "records", but no data can be added or viewed. It's time to deal with "fields". The database consists of records, and each record has one or more fields.



5. We need to add fields to our database. Click on the field icon, and select ADD. Define a long rectangle in the middle of the screen, and then name it ".filename". The full stop at the start of the name is essential.



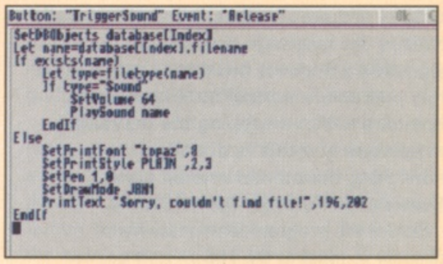
6. When you browse the deck, you will see that you can now use the Add button to create a new entry, and then use the arrow keys to move back and forward between the entries you have typed in previously.



7. You may want to add a name for this field. Go back to the deck script "After Attachment" and add some text to describe the field. For example, "Sound Sample".



8. Now we need a way to act on the data stored in the field. For example, we may want to play the sound sample whose name is displayed. To do this, add a new button, and locate it beside the field, as shown in the picture.



9. Now we can edit the Release script of the button, and add the following. The script will obtain the filename from the database, check to see if the file exists, then test to see that the file is a sound sample. If it is, it's played.

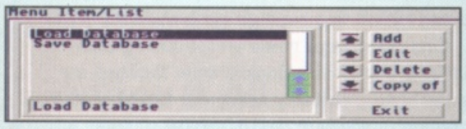
Today's menu

The Amiga's operating system makes extensive use of the pull-down menu, and there's no reason why you can't either. Here's how to add some menus to the database program. You might want to add more functions via the menus too, and once you get the hang of it, it's pretty simple. Remember to look at existing Amiga applications when designing the menu layout.

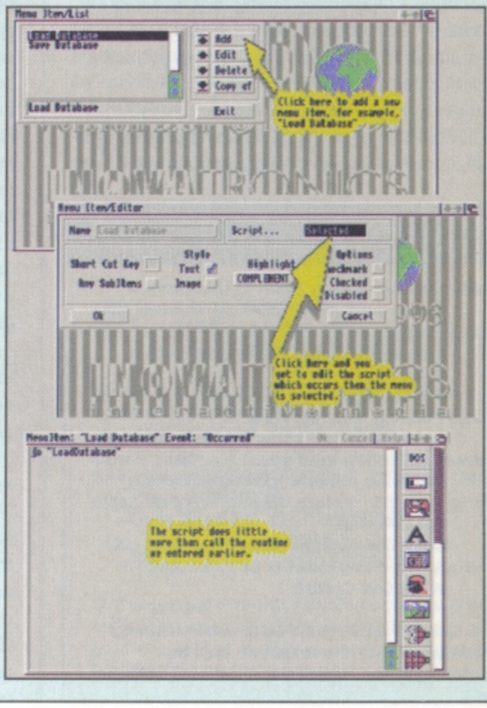




10. You'll remember we had some scripts left over: Load and Save were two of them. Let's add them to a pull-down menu, available from our application. First of all, click on the Menu button.



11. Now create a new menu. You'll then be given the option to add or edit menu items. Remember that each menu can have several options.



12. Each menu item has an associated script which can be edited in the same way as a button. Here we call one of the routines we entered earlier.

HiSoft BASIC

This month **Paul Overaa** *gives you more details on the port swapping technique that enables the use of Gadtool gadgets within conventional HiSoft Basic created windows.*

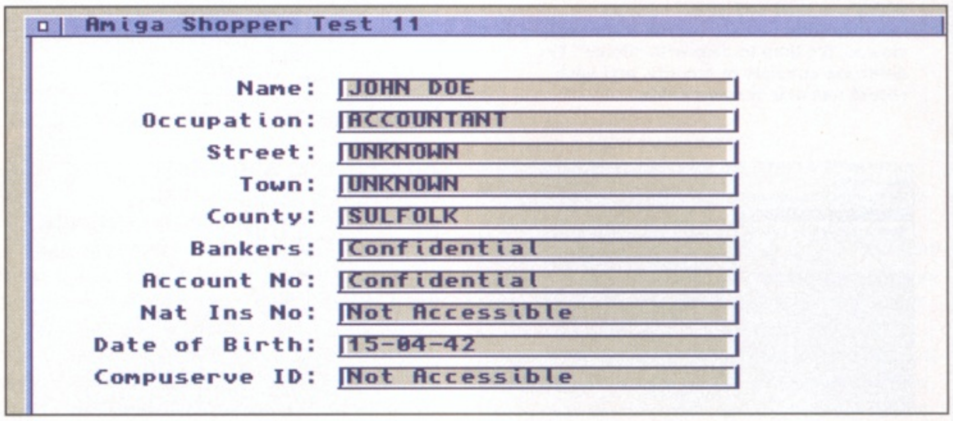
Installing a new message port is easy enough because the exec library contains a CreateMsgPort&() routine that takes care of most of the hard work. It allocates a suitably sized structure, acquires a signal bit, and generally initialises the message port so that our code is signalled whenever messages arrive. As a safety precaution normal multitasking is suspended whilst swapping the message port pointers and this is done by sandwiching the pointer related code between exec Forbid()/Permit() calls.

Before the program terminates it's necessary to replace the HiSoft port pointer back in the Window structure. This allows the normal window closing operations to remove the original port and the additional port can then be deleted using exec's DeleteMsgPort() function (Listing One shows the overall framework for the port creation and dismantling operations).

Once the new port has been installed the window's IDCMP flag set can be modified to request the additional messages required by the Gadtool gadgets. Certainly with many programs it would be OK to make changes to the flag set just once – immediately after the new port had been attached to the window. However there are a number of potential problems: Firstly, HiSoft Basic may on occasions modify the IDCMP flags on the fly. Secondly, there was no guarantee, when such adjustments were made that HiSoft Basic would preserve the states of any IDCMP flags that it was itself not using (although I'm now happy that it does).

Because of these concerns I was originally collecting and re-adjusting the flag set at every possible opportunity. This meant that some unnecessary flag modification work was being done in last month's examples (a small price to pay during the early port swapping trials). It would be more efficient to isolate the flag adjustment code into a separate routine and, based on the statements present in a particular Basic program, to only adjust the flag set when there was a valid reason for doing so. You'll find this approach used in this month's example (see Listing Two for details of the ModifyFlags() routine) and the important thing to note is that we read the existing flags and then OR them with the new additions. This ensures that all existing HiSoft flag settings are preserved!

One discovery I made whilst testing this routine is that HiSoft Basic's timer facilities are not (as I had previously assumed) based on the reception of IDCMP_INTUITICKS& IntuiMessages. This means timer events do not in themselves ever result in the GadTools Handler%() routine's wait condition being satisfied. Because of this it's necessary during the times that no gadget or menu messages are arriving to find some way of breaking the wait condition and exiting from the GadToolsHandler() so that HiSoft Basic can be given a chance to handle any timer (and perhaps other non-message based) events. The solution is to arrange for IDCMP_INTUITICKS& messages to be sent to my substitute port and this is why you'll also find this flag specified in the call to the ModifyFlags() routine!



A change of window size and the gadget count (plus some new gadget labels) were all that was required to produce this modified test11 example (also on the coverdisk).

Message Collection

I dealt with the arrangements for message handling in installment three mentioning that whilst conventional IntuiMessages are handled using the exec GetMsg&() and ReplyMsg() functions, Gadtool messages need to be dealt with using the equivalent GT_GetIMsg&() and GT_RelyIMsg() routines. One additional problem is that these sets of routines have to be properly paired – if, for example, we collect our

Listing One

```
<Window is already open at this point>
    g_orig_port_p&=PEEKL (g_window_p&+
UserPort%)
    g_new_port_p&=Create MsgPort&()
    CALL Forbid
    POKEL g_window_p&+
UserPort%,g_new_port_p&
    CALL Permit . . < This is where the main
event collection loop goes! > . . CALL Forbid
    POKEL g_window_p&+UserPort%,g_
orig_port_p& 'replace original window port
    CALL Permit
    CALL DeleteMsgPort (g_new_port_p&)
'Window closing deletes original port
    WINDOW CLOSE 1
```

● Overall code framework used to set up and dismantle the message port that intercepts the HiSoft Basic message stream.

Listing Two

```
SUB ModifyFlags(BYVAL win_p&, BYVAL
flags&)
    STATIC current_port_p&
    STATIC IDCMP_flags&STATIC dummy&
    current_port_p&=PEEKL(win_p&+User
Port%)
    IDCMP_flags&=PEEKL(win_p&+Window
IDCMPFlags%)'get flags set by HiSoft
    REM Now add flags for gadtool gadgets
being used...
    IDCMP_flags&=IDCMP_flags& OR
flags&
    dummy&=ModifyIDCMP&(win_p&,
IDCMP_flags&)END SUB
```

● This sub program add new flags to an existing IDCMP flag set without destroying other values that exist.

Jargon Box

DOUBLE INDIRECTION: Using a pointer to a pointer.
IDCMP: Intuition Direct Communications Message Port.
POINTER: A variable holding the address of an object in memory.

messages using GT_GetIMsg&() then we need to reply to them using GT_ReplyIMsg(). You need to be aware that HiSoft Basic, in dealing with a normal Intuition message stream, is using GetMsg&()/ReplyMsg() calls – so any messages passed on to HiSoft Basic are going to need to be collected from our port using GetMsg&(), rather than GT_GetIMsg&().

Luckily Gadtools provides a filter function, GT_FilterIMsg&(), that allows a message, previously collected via GetMsg&(), to be subsequently passed through the Gadtools engine. The routine asks Gadtools to consider and possibly act on the specified message and, if that message applies to a Gadtool gadget, to return a pointer to a modified Gadtools version. At this stage the various message fields of a Gadtool generated message (class, code and so on) can be read just as if GT_GetIMsg&() had been used [the function can also return a null pointer to indicate that the message was consumed (used) by Gadtools].

Once the contents of the (possibly modified) message have been extracted a GT_PostFilterIMsg&() routine then has to be called to allow Gadtools to perform any internal cleanup operations which may be required. All messages, including any consumed by Gadtools, then have to be replied to. As you'll see from Listing Three I've explicitly checked the now separately stored pointer returned from GT_GetIMsg&() and properly replied to the original message if the modified GT_FilterIMsg&() pointer came back as null.

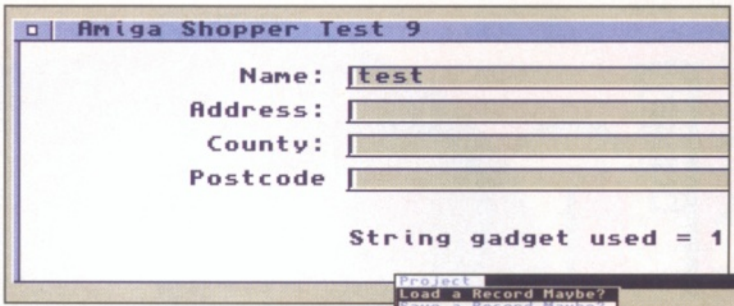
Reading a String Gadget

Example test10.bas, which you'll find on this month's coverdisk, is based on last month's

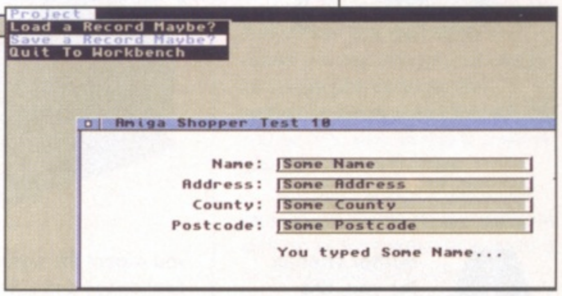
Listing Three

```
message_p&=GetMsg&(current_port_p&)
    modified_message_p&=GT_FilterIMsg&
(message_p&)    IF
(modified_message_p&) THEN
    class&=PEEKL(modified_message_
p&+Class%)
    code%=PEEKW(modified_message_
p&+IntuiMessageCode%)
        gadget_p&=PEEKL(modified_
message_p&+IAddress%)
        message_p&=GT_PostFilterIMsg&
(modified_message_p&)
        < Basic SELECT CASE statements
can be used here to identify and act upon
the various message classes. See coverdisk
code for details >
        ELSE ReplyMsg(message_p&)'
ensure reply of Gadtool consumed
messages!
    END IF
```

● General framework for filtering messages through the Gadtools engine.



LEFT: The code is an extension of the test9 string gadget from last month.
BELOW: The display produced by this months test10 program.



test9.bas code but with the improvements mentioned above. In addition, anything typed into a string gadget now gets re-displayed along with details of the gadget used. The ShowMessage() routine used to achieve this is similar to that used in earlier examples although you'll notice from the source that I've now parameterised the string x/y location co-ordinates and the timeout (delay) values used when displaying the text. This makes the routine a little more flexible.

In order to display the contents of a string gadget it's necessary to locate the internal buffer in which the text is stored and several steps are involved: Firstly, we look in the gadget field specified by the GadgetSpecialInfo% offset (defined in the intuition.bc constants file). This field provides a pointer to a StringInfo structure whose first field is a pointer to the text buffer. Secondly we need to extract this address in order to locate the string itself. The most convenient place to collect the buffer addresses is in the gadget creation loop because the gadget's address is returned each time the CreateGadgetA&() is used. By setting up an array to store the addresses of the gadgets being prepared like this...

DIM g_string_buffer&(G_COUNT&+1)it's possible to read the buffer address of each gadget by using this sort of double indirection statement...

g_string_buffer&(i+1)=PEEKL(PEEKL(gadget_p&+GadgetSpecialInfo%))

By the time all gadgets are created the g_string_buffer&() array will be set up in such a way that the text input for the i'th gadget will always be available via the g_string_buffer&(i) pointer. You need to be aware incidentally that the string gadget contents are stored as C-strings (i.e. they are null terminated). Because of this it's necessary to use PEEK$() to convert them to normal Basic strings before printing (or using them as input to any other Basic statements). Listing Four gives an illustration of how this is done.

Putting It All Together

The whole purpose of the port swapping approach has been to find a way to combine Gadtool gadgets with the more conventional facilities that HiSoft Basic provides and the test10.bas example will hopefully convince you that the path is worth following. As I've said, the code is based on the test9.bas example from last month but in addition to the changes already discussed I've also added timer and left mouse button event handlers using conventional HiSoft Basic commands. All the event handlers are simple (they just deliver text messages) but this is neither here nor there – what matters is that we now have HiSoft Basic handling the close gadget, menu events, timer events and left mouse button events in it's conventional high-level way, but coupled to a set of Gadtool gadgets that generate their own events.

I'd been told it couldn't be done but run the program and watch the display. Every second or so you'll see a timer event message appear near the right of the display. Click the left mouse button somewhere in the window (not in one of the string gadgets) and some text will appear indicating that a mouse event has occurred. Pick a menu item – the number of the item you have selected will be displayed. Now type something into one of the string gadgets – here my GadToolsHandler%() kicks in to identify the gadget although again it is the subsequent conventional Basic code that tells you what you typed and which gadget was used. If this isn't proof that the gadgets are working perfectly well with HiSoft's other facilities I don't know what is!

Although we've come to the end of this series, this last example is just a starting point – any number of utilities could be produced just by modifying the gadget creation routine to add the gadgets needed, and then just hanging various pieces of 'real' code onto the case select statements in the main gadget loop. ■

Listing Four

```
    IF (g_gadget_id%>0) THEN
SELECT CASE g_gadget_id%
        CASE 1 TO G_COUNT&
                CALL
ShowMessage(GADGET1$+PEEK$(g_string_
buffer&(g_gadget_id%)),_
    GEN_X%,GEN_Y%,TIMEOUT&)
                CALL
ShowMessage(GADGET2$+G_TEXT$(g_gad
get_id%)+GADGET3$,_
    GEN_X%,GEN_Y%,TIMEOUT&)
                CASE ELSE
    BEEP            END SELECT
```

● The gadget identity, coupled with the pre-initialised array of string gadget buffer pointers, makes it easy to determine the text typed into a gadget!

Talking shop

Obviously we've had bags of letters from disgruntled readers, although some have been understanding, while elsewhere there's praise and ideas on the road forward for the Amiga. Read on...

Another chance for you, the readers, to get it all off your chests and let us know what you think about the magazine, the future of the Amiga, or anything else for that matter.

Going round in circles

Remember the C64? It was still being explored by programmers and being pushed in directions originally thought impossible when... well, you know what happened. C64 magazines like Commodore Format got smaller, more technical and became hobbyist magazines until... seen any lately?

Does history repeat itself? Can the Amiga survive without support? As magazines get more expensive we are forced to reduce the number we purchase each month. Less readership equals less production, higher print costs and magazine price hikes. The circle continues. If this trend carries on we will witness yet another computer going to the technology museum.

L Burse
Chippenham

I am a subscriber to AS, a magazine I have enjoyed, but I was bitterly disappointed when I received the July issue for three reasons. Firstly the magazine had only 58 pages, secondly there was a Coverdisk missing and thirdly the price had increased to £4.50.

Let me put this into perspective: last April it was 114 sides for £3.95, then £3.99 for 106 pages and then £4.25 for 80 pages and now a 3 tier attack. You make the excuse that it is the lack of advertiser confidence. How can you expect the customer to have confidence and take out a subscription for a magazine which is over-priced. Perhaps you should consider merging two Amiga titles together until confidence returns to the Amiga?

B Hannaway
Derry

Well, as you can imagine we've had plenty of letters and e-mails and there's been lots of talk on Fidonet about the state of AS. The circle does indeed continue and there is no way to break it, I'm afraid. There have been suggestions that dropping the disks and the paper quality and the price would bring back readers. The truth is that there aren't enough Amiga owners out there to make a significant difference, whether they currently buy Amiga mags or not. Active interest in the Amiga is declining and AS has done very well to retain the readership it has. We have been the slowest declining of all the mags and I think that is a credit to the quality of the magazine and its writers. However, we started with a lower readership than other mags because of our niche status and each drop in circulation takes us closer to the butcher's knife.

I don't understand why a subscriber should complain about the price rise as they haven't been expected to pay a single penny more, so in fact they've saved over normal readers. I wasn't attempting to make any excuses for the price rise and loss of a disk. It is not something that I wanted to see, but it was, as I said, a choice between that and the closure of the magazine, which is not what readers want. It seems better to give people at least the chance to decide for themselves whether they want to buy the magazine than to give them no chance at all. The number of advertisers does govern the size and price of a magazine – it is as simple as a publisher typing the number of ad pages into a spreadsheet and being told how many pages the magazine can afford. If things continue to deteriorate, then I'm sure you will see us merge back with the mothership from whence we came (er, Amiga Format, I mean).

Over the pond

I have just purchased your July 1996 issue from an Amiga dealer in White Plains, New York. I've been buying your excellent magazine for at least three years, probably longer. When I first started reading, I sent a note to your office asking for subscription details, in particular the easiest way to subscribe from the USA. I received a scrawled reply that I couldn't read.

I also mentioned that I was a member of three Amiga user groups and would be willing to pass this information on to the other members, especially as many of them are buying AS from dealers or bookstores. When I read your editorial stating that you would like more direct subscriptions, I decided to write again. How can we subscribe?

One other request, on page 14 you mention a book called First Steps Amiga by Paul Overaa from Bookmark Publishing. What's their address?

W Modell
Bronx, New York

Subscribing is easy and we have plenty of US subscribers already. All you need do is send in your details to our Subscription department or phone them. Mark any letters clearly for them. The easiest way to pay would be with a credit card as they would handle the currency exchange for you. As for Bookmark, their address is the same as HiSoft's which is The Old School, Greenfield, Bedford MK45 5DE.

Perfect Project

Thank you very much for the LCD DIY project, it is great. Please can we have some more? Good luck trying to survive. You are definitely the best Amiga magazine, It will be a great shame if you stop.

C Jones
Brighton

Glad you liked the project. The credit must all go to Hendrik for creating it though. You'll be pleased to see a little extra utility for it on this month's disk. Thanks for the good wishes. We certainly need them!

Thank you all

I really thought that it was time to put inkjet to paper and say a big thank you to yourselves, Quantum Leap (the new owners of the old Rombo Vidi 24RT) and the Post Office. An unlikely combination in anyone's view, but let me explain.

When reading the May edition of AS, particularly the article on the Vidi, I thought it would be an invaluable asset in connection with my Wedding Video service. The next section that I looked at was the Reader Ads and to my amazement someone was actually selling one and so I telephoned the number and lucky old me, it hadn't been sold. So, I arranged the purchase and got it delivered.

Within the week I was the proud owner of a Vidi 24RT and saved myself £100 into the bargain. I then began the process of learning how to use it to the best advantage with my SVHS VTRs and editing suite (Editman

Pro SP) which controls my PC (ugh) and my Amiga 4000/030 (hurrah) and in turn Scala, animations and Iffs and a Panasonic MX30.

The only problem that I encountered was the lack of a suitable lead from the parallel port to the Vidi 24RT and this is why I contacted Quantum Leap who offered to supply the lead for a very modest sum. This was at 1630 hrs and bearing in mind that they are in Livingstone, Scotland and I am in South Devon, you can imagine my surprise when at 0830 hrs the following morning it arrived on my doorstep, thanks to the efficiency of the Post Office. I then realised that I would have some difficulty in reaching behind my computer each time I wanted to print anything as I would have to change cables every time. I bought a switch box to connect Vidi, printer and my Digital Sound Sampler. The next problem was that I need a cable with a male at each end, so I again contacted Quantum and the very next day at breakfast the lead arrived.

I then thought my installation problems were at an end, but I had requested a lead 18" long and this coupled with about 5" of wiring within the switch box caused some problems with the Vidi and so another phone call to Quantum got me a shorter lead at no extra charge, even though I had not actually purchased the unit from them originally.

And so I would like to thank all concerned in the above. Life can often be difficult and we all tend to complain, so it's nice instead to have the opportunity to say "Thank you all."

B Hunter
Newton Abbot

It's great to see that some companies do still care about the customer. I'm glad to hear that you've got your system working to your requirements. It does seem that the one professional area where the Amiga is still cutting it, despite not seeing any advances for a few years, is the video industry. The PC is just not up to it still. We have even had letters from foreign TV stations that make use of the Amiga because of its ease of use and quality in respect of video work.

Power up

So the Amiga has been sold again and we're all wondering what the future holds for the Amiga and how it's going to compete with the juggernaut competition from the PC. Take a look at the letters pages of the recent Amiga press and you'll see that users want PC expansion slots in their Amigas to take advantage of all the cheap PC hardware out there. they want Doom (for crying out loud!) and they want faster processors.

You'll notice that editorial staff of Amiga mags (including AS) are starting to use PC originated terms like "Plug and Play" in place of Amiga native legends like "Autoconfig" to describe hardware. What does this tell you? To me it looks as if what Amiga users really want is a PC!

OK, so maybe not in so many words, but don't forget that PC stands for Personal Computer and not Computer at the mercy of Microsoft. Those things really suck. Believe me, I know, I work in PC Technical Support. Of course, we all want to use Amigas, but we want cheap hardware as well.

I suggest that the way forward for the Amiga is as follows:

1) Make the machine mainly PCI based but with some Zorro slots for those who want to install hardware from their current Amiga. After all anything available on Zorro is available for less money and better quality on PCI.

2) Scrap any development of future Amiga chipsets, unless of course it is going to be comparable in price and power to equivalent PCI graphics cards. If this is the case, then the chipset must be on a card so that it can be replaced with updated versions in the future.

3) Learn from Apple's mistakes. This is a much bigger company than AT and if they can't survive on the strengths of their own machine, how can AT hope to? Concentrate on the development of the OS and licence it to whoever wants it.

There will be those who will wonder how much such a machine will remain an Amiga at heart. The thing is, what set the Amiga apart from the rest was its chipset. At the time of its release in 1985, there was nothing else like the Amiga. There was absolutely no competition for the price. Unfortunately due to the unbelievable attitude and mismanagement by the Amiga's custodians, development of the Amiga stagnated and the competition simply caught up. The result is that competitive hardware has been mass produced for a much cheaper price until now, in 1996, there is no need for propriety chipsets such as AGA or even AAA.

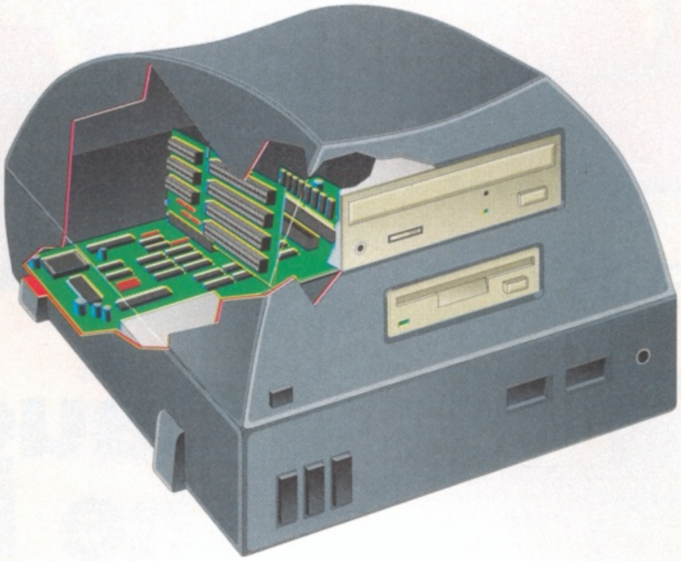
The way I see it is that Amiga users have their computers for either or both of the following reasons: games or productivity.

Now if you are using the Amiga for productivity, you're using applications which make use of the OS. This is when you are truly using the Amiga itself. However, if you are playing games then the chances are that the programmer has thrown the OS out of the window. You're not really using the Amiga then are you? After all, would you say that you are using an Amiga just because you happen to be playing Worms? Of course not, after all this is a game available for the PC too!

My point is that a game can be made available for any platform as long as the hardware is up to it, as can productivity software so long as it can run the necessary OS. I think it's about time that Amiga users swallowed their pride and caught up with the 90s and demanded a fast PowerPC machine from AT, bundled with AmigaOS, which has all the features I describe above and a curvy case with Amiga slapped on it! The result? A cheap, fast computer running AmigaOS that's easily and cheaply expanded and can play Descent and Worms. I wrote this letter using Wordworth on my Amiga at home and I'd like to be able to do the same in three years time.

J McBrien
Basingstoke

Plug and Play! Great term, but as you probably know, one that's been referred to as Plug and Pray by most PC users. The idea is that hardware is automatically detected. Huh! So why do you have to use the BIOS and FDisk before you can use Add New Hardware to get your PC to recognise a new hard drive under Win95. No, I agree with you. A fast, expandable, cheap machine which can run other systems and platforms, but has the best OS around. We'll have to wait and see. Maybe VIScorp have something even better in mind. ■



The "MindWalker" from Amiga Technologies – the Amiga that never was.

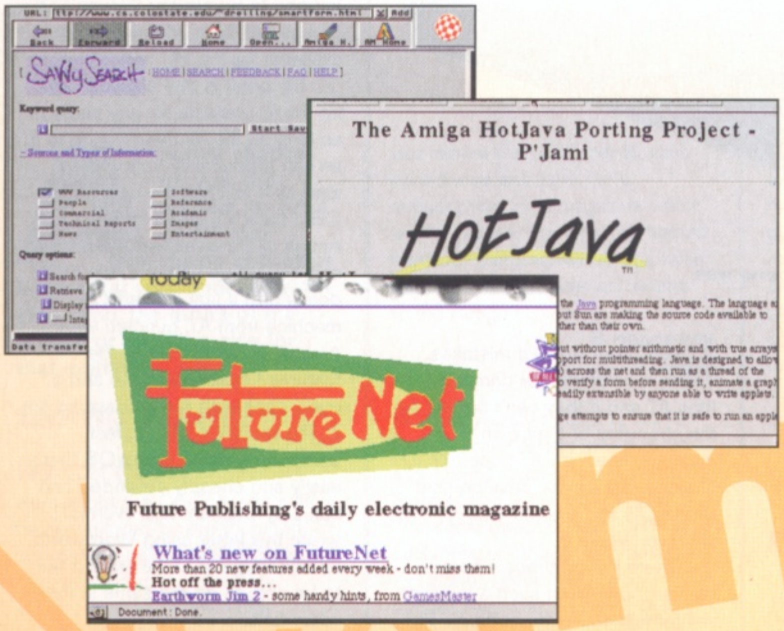
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Issue 67

Next month



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Amiga Developer CD v1.1

The official developer CD from Amiga Technologies contains all the material you need to start developing software forAmiga computers. This includes: The CD32 developer package. In addition to the original five disk set distribution you will find the "Build-CD" CD writer package Packages contributed by 3rd parties: The WBPath and ActionFSSM packages, courtesy of Ralph Babel; The Envoy v2.0 developer kit, courtesy of IAM, Inc.; The INet 225 developer kit, version 2, courtesy of Interworks, Inc.; The Kiskometer package, courtesy of Angela Schmidt; The Enforcer v37.64, courtesy of Mike Sinz. Information in support of forthcoming operating system developments. Additional developer material: BOOPSI gadget and image classes; The AmigaOS 2.04 example code, as part of the original 2.04 Native Developer Kit; The RKM 2.04 code examples; The complete set of registered IFF forms; IFF example and stress test files; All IFF packages released by Commodore-Amiga, Inc., covering 1986 through 1992; The camd v37.1 MIDI developer kit; The SANA-II standard package and developer kit; The Installer v43.1 package. International support material: Sample text using the full ISO-8859-1 character set; Translation guidelines. The updated 3.1 Native Developer Kit: "C" and assembly language header files, linker and runtime libraries; System documentation and tutorial texts; Example code covering the Amiga OS 3.0 and 3.1 features; The NewIFF v39 package; The AmigaGuide and DataTypes documentation and example code. Reference material: The collection of AmigaGuide Volume 1 articles, covering Spring 1987 through January/February 1989; The complete AmigaGuide Volume 2 articles in AmigaGuide format, covering January/February 1990 through March/April 1993; also included are the printable issues in PostScript and PageStream format; Hardware related articles; The Includes & Autodocs in AmigaGuide format. £14.95

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Aminet Set 1

Aminet is the world´s largest collection of freely distributable Amiga software. Up to 10.000 users access the vast archives ervery day and countless programmers publish directly via Aminet. Until recently access to Aminet was restricted to international network users. With Aminet Set 1, consisting of 4 CDs, the complete archive is published the first time. This CD-ROM-collection, which is dated January 1995, offers an almost inexhaustible reservoir of top-value Shareware. A wide variety of programs is included: Applications, Games, Demos, Pictures, Mods, Animations, Developer-Material, ... It contains approximately 4 gigabytes of software in 12.500 archives and you will enjoy the comfortable user-interface. £29.95



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Aminet Set 3

AMINET SET 3, dated July 1996, consists of approximately 4 gigabytes of software in 9.000 archives. Also included are full versions of Imagine 4.0, XiPaint 3.2, OctaMED 5.0 and some commercial games. Whether you like applications, games, communications or programming, the SET gives you all you need. 95 MB Utilities, 79 MB Documents, 408 MB text software, 12 MB Disk/HD tools, 7 MB Hardware related, 756 MB Pictures & Animations, 208 MB Graphics software, 394 MB Graphics & sound demos, 563 MB Games, 64 MB Miscellaneous, 685 MB Music modules, 28 MB Music software, 131 MB Communications, 91 MB Development Software, 88 MB Business software. Easy to use index files and search facilities make accessing it a pleasure. £39.95



Gamers' Delight II

This CD contains 1070 games for the Commodore Amiga from differing categories. Action, Jump & Run, Card Games, Puzzles, Strategy Games - a whole range of computer entertainment awaits! Gamers' Delight will hold you captivated for hours and guarantees long-lasting pleasure. 70 games are commercial versions - no public domain & no demos! This CD can be run on any Amiga with CD-ROM drive,1 MB free memory and Joystick/Joypad. £26.95



Meeting Pearls Vol. III

The Meeting Pearls Volume III contains 650 MB of the finest FD software via a special user interface, which has been created to allow you to find the program of your choice with ease. The contents: 10 MB Packer, Cruncher, Archive Programs · 3 MB CD-ROM Utilities · 21 MB Communication and Network Programs · 5 MB Debugging Tools · 29 MB Development Tools · 13 MB Floppy, Hard Disk ans SCSI Programs · 8 MB Educational Programs · 9 MB Games · 35 MB Graphics Programs · 39 MB Internet Movie Database, Updated Version · 7 MB Midi Tools and Programs · 27 MB Mods · 12 MB Music Programs · 21 MB Pictures · 13 MB AmiTCP and more for Networking · 60 MB Documentation, CD-ROM Databases, etc. · 96 MB PasTeX 1.4 - not previous available on any CD-ROM · 15 MB Utilities · 30 MB HTML-Pages · Collections of datatypes, benchmark programs, icons, programs for amateur radio and electrical/electronic engineering are also included. £9.95



Aminet 12

Still available! £14.95



Aminet 13

Aminet CD 13, dated August 1996, consists of approximately 1,1 gigabytes of software in 2400 archives. Since the release of Aminet CD 12 more than 800 MB new software has appeared. The current edition has a special focus on animations, several hundred animations from the internet were included. User friendly access software makes the Aminet CD 13 a pleasure to use. £14.95



XiPaint V4

XiPaint 4 is the new version of the leading edge, 24-bit paint program. It's suited to the demands of novice and expert alike, and within a short time, you too will be able to produce colourful and creative art in 16.8 million colours. This version of XiPaint features animations as well as easy-to-use raytracing-capabilities.
Overview of Features: · Diverse paint functions including colour, contrast and saturation adjustment · Mask, outline, recolour and fill functions · Airbrush with adjustable spray functions · Light-table function for manipulating montages and animations · Text functions with anti-aliasing using Compugraphic fonts · Support for a variety of graphic formats · Unlimited Undo · Diverse manipulation of alpha channel · Supports many graphic cards · Layers to combine different projects · ARexx port · Drag & Drop colours · External filter module · Extensive documentation · 60 textures, 50 landscapes, 30 other pictures and many fonts included. £49.95



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NetNews Offline Vol. 1

NetNews Offline Vol. 1 is the first disk of a new bimonthly published series of Amiga CD-ROMs which contains all Amiga-related newsgroups from the internet. Every volume features about 50.000 articles which contain hot rumours, important information about all aspects of the Amiga, press-releases, discussions and flame wars, ... A newsreader is included. NetNews Offline is the cheap alternative of getting in touch with Usenet. £14.95

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